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ABSTRACT

Since its establishment in 1996, the National Center for the Study of Adult Learning and Literacy (NCSALL) has actively conducted and disseminated research to help build effective, cost- efficient adult education and literacy programs for adults who have low literacy and math skills, limited English skills, and/or no high school diploma. Funded as a national research and development center, the NCSALL maintains strong ties to the world of practice, and most of its staff members have experience as adult educators and previous research experience with adults. The following are among the NCSALL's main areas of focus: leadership (promoting a research perspective; building research capacity); research (adult student persistence; literacy practices; adult reading components; health and adult learning and literacy; adult development; adult multiple intelligences; classroom dynamics; English for speakers of other languages; staff development; General Educational Development program impacts; assessment of educational outcomes); lab sites (management; practice; research; professional development); and dissemination (print, electronic, and face-to-face dissemination and dissemination through the Practitioner Dissemination Research Network). The NCSALL's research has identified important lessons for the following areas: literacy and its outcomes; differences between K-12 and adult education and literacy systems; and incorporating research into adult education practice. (The bibliography lists 22 references. A list of 50 NCSALL publications is appended.) (MN)

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THE FIRST FIVE YEARS

National Center for the Study of Adult Learning and Literacy

1996-2001

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1996–2001

NCSALL Reports #23
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National Center for the Study of Adult Learning and Literacy

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INTRODUCTION

As the 21st century begins, the citizens of the United States find themselves living and working in a new economy—one built on a foundation of information and communications technology. This new economy provides advantages to people who possess both educational credentials and strong basic skills. Those basic skills include reading, writing, math, the ability to speak English, and a range of additional skills, such as the ability to think critically, to work in collaborative problem-solving groups, and to use computers and other technology tools. In this new economy, a high school diploma, by itself, less often leads to a career with a good future. At least two years of postsecondary education or its equivalent in vocational training is becoming the minimum qualification for jobs that pay a living wage, provide basic benefits, and offer a chance for advancement. Adults who possess sufficient skills and education are prepared to take advantage of the new economy's opportunities.

The tasks involved in managing individual and family lives have also become more demanding. Dealing effectively with insurance policies, securing and handling health information and benefits, managing credit, and planning for retirement require well-developed basic skills and a foundation of knowledge about these matters. In addition, schools are setting the bar higher for children. Although improvements in schools will help them meet these new demands, they will also need the support of educated parents.

The rights and responsibilities of citizenship in our communities, states, and nation are now more demanding as well. Every citizen should understand the basic principles that underlie the threats to our environment, the trends in our global economy, and the possible effects of changes in tax, welfare, education, and other social policies. As our communities become part of an interdependent world, we need every citizen prepared to participate in local political and civic arenas and to help maintain and improve the quality of life in our country.

The changes taking place over the next century will require all adults to continue learning throughout their lives, on the job, at home, and in both traditional formal settings and new informal ways, some yet to be invented. A strong foundation of basic skills is critical to success as a lifelong learner. People who do not possess high levels of these skills will find it difficult to keep up with the demand for continuous lifelong learning. If we want all adults in the United States to have an opportunity to reach their full potential, access to an education that provides a strong foundation for further learning must be available to not only children but adults as well. The federal and state system of programs that provides this educational opportunity to adults must be expanded and improved, based on evidence from sound research.

NCSALL

The mission of the National Center for the Study of Adult Learning and Literacy (NCSALL) is to conduct and disseminate research that helps build effective, cost-efficient adult education and literacy programs. These programs serve adults who have low literacy and math skills, do not speak English well, or do not have a high school diploma. These programs are known as adult basic education (ABE), English for speakers of other languages (ESOL), and adult secondary education (ASE). Most students in ASE programs are preparing for the General Educational Development (GED) tests. The federal and state system that supports these programs is called the Adult Education and Literacy System (AELS).

NCSALL is funded as a national research and development center by the U. S. Department of Education through the Office of Educational Research and Improvement's (OERI) National Institute for Postsecondary Education, Libraries, and Lifelong Learning (PLLI). NCSALL was established in August 1996 with a five-year grant, which has been extended through 2006 with an additional five-year grant. Total funding from all sources during the first five years was $13,500,000. Funding for the second five years is projected to be $16,500,000.

NCSALL is based in Massachusetts at Harvard University's Graduate School of Education and includes as partners Rutgers University in New Jersey, Portland State University in Oregon, the Center for Literacy Studies at the University of Tennessee, and World Education, a Boston-based nonprofit agency. NCSALL is a collaboration managed by representatives from each of the five partners. During its first five years, NCSALL also supported researchers at the Harvard School of Public Health, Brown University in Rhode Island, and Michigan State University. NCSALL has published the work of practitioners and scholars from 38 states and three foreign countries.

NCSALL is strongly connected to the world of practice. Most NCSALL researchers and staff have been teachers in ABE, ESOL, or ASE programs, and all have previous research experience with adults. NCSALL scholars were involved in the design of Harvard's workplace literacy program, Bridge to Learning, which provides ABE, ESOL, and ASE services to Harvard employees and contract workers. Graduate students tutor adult literacy students in NCSALL's offices at Harvard, and NCSALL's conference room is used for ESOL classes. Rutgers and Portland State have collaborative relationships with local programs to develop labsites for research and professional development. World Education and the Center for Literacy Studies provide training and technical assistance to most of the literacy

programs in Massachusetts and Tennessee and many more programs in other states in their regions.

In forming a research agenda, the team that designed the first NCSALL proposal reviewed examples of previous research agendas for the field. This literature was informative, representing the opinions of several groups of national experts, but did not include the voice of practitioners. To include that voice, the team undertook a modified Delphi study that gathered written opinions from practitioners, administrators, and policymakers. More than 450 professionals in the field responded. The study also commissioned short papers from two national experts. This exercise identified four key questions that structured NCSALL's program of research:

- How can the motivation of individual adult students be sustained and enhanced?
- How can classroom practice be improved?
- How can staff development more effectively serve adult education and literacy programs?
- What impact does participation in adult education and literacy programs have on an adult's life, and how can this impact effectively be assessed?

This document describes NCSALL's work and then synthesizes how its research responds to these four questions. Some of the research is continuing into the second grant period, so additional findings from these projects will be available in the future. NCSALL's work falls into three broad categories: leadership, research, and dissemination.

LEADERSHIP

NCSALL is pursuing two objectives related to leadership: to bring a research perspective to national and state policy efforts focused on expanding and improving services and to help build the field of adult learning and literacy research. NCSALL works closely with OERI, the National Institute for Literacy (NIFL), the Office of Vocational and Adult Education's (OVAE) Division of Adult Education and Literacy (DAEL), the National Coalition for Literacy (NCL), and the National Adult Education Professional Development Consortium (NAEPDC) to accomplish these two leadership objectives.

Promoting a Research Perspective

In the first year of the grant, NCSALL began discussions with OVAE/DAEL and NIFL about jointly supporting a National Literacy Summit that would help set an overall agenda for the field. The summit, which was cosponsored by NIFL, OVAE/DAEL, NCL, NAEPDC, the Wallace Reader's Digest Funds, and NCSALL, took place in February 2000 in Washington, DC. The summit participants discussed a draft action agenda, which was also discussed in meetings around the country and online. All of this input was analyzed by NIFL staff and led to the publication of *From the Margins to the Mainstream: An Action Agenda for Literacy* in 2000. The *Action Agenda* set a broad vision for the field and specifically called for the development of a strong research capacity focused on teaching and learning. The broad vision of the *Action Agenda* did not suggest a specific research agenda.

NCSALL, the National Center for ESL Literacy Education (NCLE), and the association of Teachers of English to Speakers of Other Languages (TESOL) worked together to consult with a group of ESOL experts and practitioners to draft an agenda specifically for ESOL, which led to the publication of a *Research Agenda for Adult ESL* in 1998. This research agenda now serves as a framework for adult ESOL research. At the same time, NIFL, NCSALL, and OVAE/DAEL held focus groups of stakeholders nationwide addressing a research agenda for the AELS. This input was analyzed and discussed with a national steering group and published as *A National Plan for Research and Development in Adult Education and Literacy* in 2001. The *National Plan* now serves as a resource for researchers and funding agencies. For example, the new William F. Goodling Institute for Research in Family Literacy at Pennsylvania State University is using it as a framework for developing a research program.

The broad vision of the *Action Agenda* provides a good framework for the field, but it doesn't address the details needed to understand the potential student

population, the justification for investment, and the existing system. To provide that detail, NCSALL partnered with the Massachusetts Institute for a New Commonwealth (MassINC) to produce a case study of the AELS in Massachusetts. The resulting document, *New Skills for a New Economy: Adult Education's Key Role in Sustaining Economic Growth and Expanding Opportunity*, was published in 2001 and received statewide and national attention. The governor of Massachusetts cited *New Skills* in her first executive order, which established a state commission to provide advice on how to address the need for workforce basic skills training. The report of that commission also cited the *New Skills* report.

NCSALL produced a version of *New Skills* that summarized the points made but used national data. *Building a Level Playing Field: The Need to Expand and Improve the National and State Adult Education and Literacy Systems* was published in 2001. Once both the 2000 Census and the 2002 National Assessment of Adult Literacy (NAAL) data are available, this document will be revised to present a more current picture of the need for services.

To help practitioners and policymakers understand research better, the first issue of NCSALL's quarterly publication, *Focus on Basics*, covered the topic of research. *Focus on Basics* has continued to educate its readers about research as well as present the findings from research. In addition, NCSALL scholars have published several articles that explain to practitioners and policymakers how to use research for program and policy improvement. These articles include "Not a Myth but a New Reality: What IALS-like Tests Measure," in *Literacy Across the Curriculum*; "Resolving the Issue of Methodology," in *Mosaic*; and "How Research Can Help Correctional Educators," in the *Journal of Correctional Education*.

NCSALL scholars are working with a NIFL project, supported under the Reading Excellence Act and then the Reading First Act, that is identifying scientifically based evidence for improving the teaching of reading for adults. This work is drawing from a framework developed by NCSALL's Adult Reading Components Study, and NCSALL scholars are helping NIFL develop a Web-based resource that will make the project's findings available to practitioners.

NCSALL also supported two conferences that brought researchers and practitioners together to discuss specific issues. The first conference, cosponsored by the U.S. Department of Education and the Organization for Economic Cooperation and Development (OECD), focused on how OECD countries are addressing the educational needs of immigrant adults, adults with low basic skills, and older adults. The conference proceedings were published as *How Adults Learn* in 1999. The second conference focused on three papers that explored the

relationship between the AELS and welfare reform. One paper was prepared by an anthropologist, another by a group of economists, and the third by a group of practitioners. The three papers and a summary of the conference discussions were published as *The Impact of Welfare Reform on Adult Literacy Education* in 1999.

Over the last five years, NCSALL scholars have served on national advisory panels for the Equipped For the Future (EFF) initiative, the National Center for ESL Literacy Education, the What Works Literacy Partnership, and the Adult Literacy Media Alliance. They also have participated in listserv discussions archived on NIFL's LINCS Web site, both to introduce their research and bring NCSALL's research perspective to discussions that inform policy and practice.

NCSALL scholars have contributed to foundation works such as *Literacy in America: An Encyclopedia*, the *Oryx Dictionary of Education*, and the *International Encyclopedia of Adult Education and Training*. NCSALL scholars have participated in public policy debates by publishing letters to the editor in the *New York Times*, *Boston Globe*, and *Training* magazine, by appearing on radio talk shows, and by making presentations to Senate and House committees and staff.

Building Research Capacity

In pursuing its second objective of building the adult education and literacy research community, NCSALL is supporting doctoral students whose dissertation research is or will be focused on adult education and literacy, and playing a leadership role in professional associations. Over the last five years, NCSALL funding has helped support 11 doctoral students at the Harvard Graduate School of Education, 3 at the Harvard School of Public Health, 8 at Portland State University, 8 at Rutgers University, and 2 at the University of Tennessee. NCSALL scholars play leadership roles in the American Educational Research Association (AERA) Special Interest Group on Adult Education and Adult Literacy, the Commission of Professors of Adult Education (CPAE), the Commission on Adult Basic Education (COABE), and the American Association of Adult and Continuing Education (AAACE).

RESEARCH

When NCSALL developed its research agenda, the literature that covered its four key questions contained few studies that included NCSALL's population, looked at learning of basic skills, and used research methods providing credible conclusions. NCSALL's research agenda was designed, therefore, to explore these four fundamental domains rather than specific services or populations. After basic research develops an understanding of these domains, knowledge can be adapted to specific services and populations. This approach has led to the establishment of two labsites, one for adult ESOL and one for ABE and ASE students. The labsites will put into practice what NCSALL has learned and provide an opportunity to both observe teaching and learning and follow students in a longitudinal study.

NCSALL's research has employed both quantitative and qualitative methods. Each research project utilized the advice of outside experts both in designing a research methodology and analyzing findings. An important outcome of NCSALL's research is the development of models for research in this field. NCSALL scholars collaborated across research projects by providing each other with advice, drawing from each other's research designs and interview protocols, serving on each other's advisory panels, and discussing findings. During the first five years, NCSALL supported 12 research projects, some of which included multiple studies.

Adult Student Persistence Study

John Comings, Sondra Cuban, Andrea Parrella, and Lisa Soricone
Harvard Graduate School of Education
1997–2003

Purpose

The Adult Student Persistence Study aims to develop an understanding of the forces that support or discourage an adult's decision to stay in ABE, ESOL, and ASE programs. Although scholars have explored persistence, they have primarily examined the barriers adults encounter, not the forces that support participation. The NCSALL persistence study employed a force field analysis, a sociological model that looks at an individual in a field of forces supporting or inhibiting action.

Methodology

The project's first phase reviewed the literature on persistence, analyzed data from interviews with adult students, and investigated factors that predict persistence. Researchers conducted face-to-face interviews with 150 adult students from a wide range of adult basic education programs in five New England states (Massachusetts, Rhode Island, Vermont, New Hampshire, and Maine). The interview protocol was structured to elicit specific information about the adult students and their experience with education. In addition, students were asked first to identify all of the positive and negative forces related to their persistence and then to indicate the three most important positive and negative forces. Four months after conducting the first interview, researchers attempted to contact each study participant for a follow-up interview to ask about students' participation status.

Findings

Findings from these interviews revealed that immigrants, those over the age of 30, and parents of teenage or grown children were more likely to persist than others. In addition, two aspects of educational experience were associated with persistence. Adults who had been involved in previous efforts at basic skills education, self-study, or vocational skill training were more likely to persist than those who had not. The strongest relationship was with those who had undertaken self-study. Adults who mentioned a specific goal, such as "help my children" or "get a better job," when asked why they had entered a program were more likely to persist than those who either mentioned no goal or said they were doing it for themselves. These findings suggest that experience with education may increase an adult's self-

confidence about learning. These relationships also suggest that motivation, especially as demonstrated by undertaking self-study or by being clear about the goal of attendance, supports persistence. Although the literature review for the study identified negative school experience as a barrier to persistence, no such relationship was found in this study.

Adult students identified a range of supports and barriers to their persistence, and clear trends were evident. Most students mentioned at least three positive forces, but some mentioned many more. Many students mentioned no negative forces or just one. Adult students mentioned the support of people, particularly their families, friends, teachers, and fellow students, as the strongest positive force, followed by self-determination and personal goals. In contrast, no single negative force was common. Many students mentioned barriers specific to their situation, such as the need for child care or transportation. On the basis of observation of such trends, a review of relevant literature, and data from practitioner interviews, the research team described four key supports to persistence.

(1) Awareness and management of the positive and negative forces that help and hinder persistence. From the time adults enter programs until they either achieve their goals or drop out, they experience both positive and negative forces in relation to persistence. Helping students understand the forces, identify the strongest, and decide which can most easily be changed can provide insights into how to persist in learning. A program's intervention intended to increase persistence should help adults strengthen the positive and lessen the negative forces.

(2) Self-efficacy. Self-efficacy represents the feeling of being able to accomplish a specific task—in this context, successful learning in ABE, ESOL, or ASE programs. Educational programs should help adult students build self-efficacy. According to Bandura (1986), this requires experiences that allow an adult to be successful in learning and to have authentic evidence of that success; provide contact with adults like themselves who have succeeded in an ABE, ESOL, or ASE class; offer support from teachers, staff, counselors, fellow students, family, and friends; and attend to the psychological and emotional states that can lead to or result from low self-efficacy.

(3) Students establish goals. This process begins before adults enter a program, when an event in their lives leads to participation in an educational program. The adult education program staff should help prospective students define their goals and understand the many instructional objectives en route

to meeting their goals. Teachers should use these student goals as the context for instruction and intermittently review them.

(4) Progress toward a goal. As goals are an important support to persistence, adult students must make progress toward their goals and be able to measure that progress. Programs must provide services of sufficient quality that students make progress and have a range of assessment procedures that allow students to measure their own progress.

Aspects of these four supports already exist in some programs, but combining them may provide a more supportive environment for persistence. These supports are more likely to be built if the policymakers who provide funding value them. Therefore, persistence must become a more important measure in program accountability, and funding agencies must provide the technical assistance and training needed for programs to put these supports in place. Policymakers could then hold programs accountable for the quality of their intake, orientation, instruction, and program approaches that support persistence.

Further Research

The initial phase of this study has been completed and its findings published as *Persistence among Adult Basic Education Students in Pre-GED Classes*. The second phase of the project is being undertaken in collaboration with Manpower Demonstration Research Corporation with support, in part, from the Wallace-Reader's Digest Funds. In the second phase of the project, researchers are observing the actions of five leading library literacy programs in California, North Carolina, and New York that are attempting to increase learner persistence through a variety of operational, programmatic, and support-service strategies. This effort will lead to a deeper understanding of persistence from the viewpoints of adult students, teachers, tutors, and program staff. The third phase of the project will test the impact of the advice developed in the first two phases.

Publications:

- "Persistence among Adult Basic Education Students in Pre-GED Classes," *NCSALL Reports #12*, 1999.

- "Helping Adults Persist: Four Supports," *Focus on Basics*, March 2000.

- "So I Made Up My Mind: Introducing a Study of Adult Learner Persistence in Library Literacy Programs," New York: Manpower Demonstration Research Corporation, August 2000.

- "I Know This Is the Place for Me: Stories of Library Literacy Learners and Programs," in *Literacy and Libraries: Learning from Case Studies*, ALA Editions, 2001.

- "I Did It for Myself: Studying Efforts to Increase Adult Student Persistence in Library Literacy Programs," New York: Manpower Demonstration Research Corporation, September 2002.

Upcoming Publications:

- "Sponsors and Sponsorship: Initial Findings from the Second Phase of the NCSALL Persistence Study," *Focus on Basics*, October 2002.

- An interim report will be published in late 2002, and a final report will be published in mid-2003.

Literacy Practices of Adult Learners Study

Victoria Purcell-Gates
Michigan State University
Sophie Degener and Erik Jacobson
Harvard Graduate School of Education
Marta Soler
University of Barcelona
1997–2001

Purpose

The Literacy Practices of Adult Learners Study (LPALS) is based on the assumption that unless adults practice newly improved literacy skills by reading and writing more in their daily lives, they will fail to permanently improve their literacy ability. It was also driven by a family literacy consideration: The more exposure young children have to literacy events in their homes, the greater their chance of success in school literacy. This suggests a benefit in increasing the literacy practices in the homes on low-literate families. The study sought to answer the following question: What kind of literacy program best encourages adult students to read and write more often and more complex texts outside the classroom?

In its initial phase, the study categorized a large sample of literacy programs across the country along two dimensions:

- The degree of *collaboration* between teachers and students as to the content and assessment of the program.
- The degree of *authenticity*, with authenticity defined as those texts and purposes that exist outside of schools in people's lives.

Each program in the study was categorized in a typology based on these two dimensions.

The study sought to determine whether or not the degrees of authenticity and collaboration affect the amount of reading and writing and the complexity of texts read and written.

Methodology

Researchers collected data on the literacy practices unrelated to school assignments of 173 adults attending 83 different classes across the country. The adult students were both native- and foreign-born and ranged in age from 18 to 68 years. They were learning in a range of class types or in tutorial arrangements in ABE, GED preparation, family literacy, and ESOL programs. When they began attending the classes included in this study, participants' literacy levels ranged from preliterate (19 percent) to 11th grade or higher (7.5 percent); most read in the 4th to 7th grade range. Each class was assigned a score that reflected its location along a continuum of practice for the two dimensions of authenticity and collaboration.

To document use of literacy outside the classroom, researchers interviewed students in their homes every three months, for a total of up to four times (or as long as they attended the class). Participants were asked about a number of different literacy practices (e.g., reading to children, writing letters, reading labels on medicine bottles, writing in a journal). They also were asked if they had begun any new literacy practices or engaged in practices more often after they began the class.

To document the type of literacy program the learner attended, researchers asked the participating students to complete an extensive questionnaire on the literacy program's content, activities, and materials. Researchers observed classes and interviewed teachers and students to further understand how class materials were used and how the class was structured. From these three sources of qualitative data (the class questionnaire, class observation, and teacher interview), researchers identified the particular program according to type. To analyze relationships, the researchers converted the home literacy practices data into a scale and then modeled change as it related to class type.

Findings

Data analysis revealed that the degree of authenticity of class literacy activities and texts had a moderate effect on change in student literacy practices. This was true after controlling for other factors—such as students' literacy level at the start of the program, number of days attending the program, and non-ESOL status—that also showed independent significant effects on literacy practice change. These factors include literacy level of the student when beginning the program, number of days the student had attended the program, and the non-ESOL status of the student. The strongest independent effect was a student's literacy level at the beginning of the class. The lower the literacy level, the greater the change in literacy practices the students reported. Complementing the interpretation of this effect was the finding

that the longer students attended classes, the greater the reported change in literacy practices. ESOL students were less likely to report changes in literacy practices than were other students, perhaps because many students already engaged in literacy practices in their native language before participating in classes.

The results of this study suggest that teachers of adult literacy should increase the degree to which they include real-life literacy activities and texts in their classes. To support such changes in practice, the study team produced a teacher's handbook that includes case studies and various techniques that encourage use of reading and writing in the home.

Publications:

- "Adult Literacy Program Practice: A Typology Across Dimensions of Life-Contextualized/Decontextualized and Dialogic/Monologic," *NCSALL Reports #2*, 1998.
- "Applying Literacy Skills to Real Life Literacy Practice," *Focus on Basics*, April 2001.
- "Affecting Change in Literacy Practice of Adult Students: Impact of Two Dimensions of Instruction," *NCSALL Reports #17*, 2000.
- Adult Literacy Instruction: Degrees of Authenticity and Collaboration as Described by Practitioners," *JLR, 33*(4), 571–593, 2001.
- "Impact of Authentic Literacy Instruction on Adult Literacy Practices," *Reading Research Quarterly, 37*(1), 70–92, 2002.

Upcoming Publications:

- "Creating Authentic Materials for the Adult Literacy Classroom. A Handbook for Practitioners," *NCSALL Teaching and Training Materials*, 2002.
- "Literacy Development in Use: A New Lens Connecting School and Out-of-School Literacies through Authentic Textual Practices for Adult Learners" (working title). Research monograph under consideration by academic publishers. Anticipated publication, 2004.

Adult Reading Components Study

John Strucker and Rosalind Davidson
Harvard Graduate School of Education
1996–2006

Purpose

The National Adult Literacy Survey (NALS) revealed that approximately 46 percent of U.S. adults have a limited ability to perform a variety of real-world literacy tasks. Many adult education practitioners and researchers believe that at least three factors contribute to adult reading difficulties: lack of English literacy skills, reading disabilities, and limited education. But until the Adult Reading Components Study (ARCS) research, no large-scale study has clearly defined the reading strengths and weaknesses of the ABE or ESOL populations. The ARCS adds to the information the NALS provided by offering a useful portrait of the instructional strengths and reading needs of these learners. The ARCS goals are to develop:

- Clusters of different types of ABE and ESOL students, based on measures of the components of reading (phonics, decoding, vocabulary, spelling, speed, and comprehension)
- A more useful tool for assessing the literacy skills of NALS Level 1 adults

Methodology

ARCS researchers tested nearly 1,000 adult students at more than 30 learning centers in seven states (Connecticut, Massachusetts, New Hampshire, New York, Rhode Island, Tennessee, and Texas). The sample attempted to reflect the range of the adult learner characteristics by gender, ethnicity, age, and educational level. Researchers gave comprehensive reading tests to 600 ABE and 400 ESOL students in English. Spanish native speakers were also assessed in Spanish reading skills. In addition, a questionnaire was administered that gathered information on the students' childhood home literacy environment, educational history, language history, history of reading disabilities, self-assessment of reading strengths and needs, adult home and work literacy practices, reasons for pursuing adult education, and goals after completing adult education.

The researchers developed five test protocols for the various categories of ABE or ESOL students. Students at all levels of ABE and ESOL were tested in English reading skills, using the Diagnostic Assessments of Reading (DAR),

Woodcock-Johnson Word Attack, and the Peabody Picture Vocabulary Test III (PPVT). Spanish speakers were tested using parts of the Spanish versions of the Woodcock and PPVT. Additional tests of listening skills, short-term memory, naming, and phonological awareness were given to all ABE students, with Spanish speakers receiving Spanish versions.

Researchers used scores from the series of reading tests to develop an individual reading profile for each student. The ABE and ESOL profiles were entered into separate databases and subjected to cluster analysis, a procedure that groups students with similar profiles of strengths and needs in reading. Researchers identified 10 instructionally relevant profiles of students enrolled in ABE classes and 6 instructionally relevant profiles of Spanish-speaking ESOL students.

Findings

The 10 profiles and the percentage of adult students in each cluster are briefly noted here:

1. Strong GED students (10 percent) who have strong skills in all reading components. These grade equivalent (GE) 11–12 students can usually pass the GED tests after a few months of test preparation in writing and math.

2. Pre-GED students with needs in vocabulary and background knowledge (14 percent). These GE 8–10 students can just get through the GED tests with their present skills but should be encouraged to spend time to improve vocabulary and background knowledge if they plan to go on to postsecondary education.

3. Pre-GED students with needs in vocabulary, background knowledge, and print skills (11 percent). For this GE 8–10 group, concerns regarding vocabulary and background knowledge are similar to those about the previous cluster. In addition, their weak decoding skills and slow reading rate may make finishing the GED tests within the time limit difficult.

4. Intermediate students with adequate print skills but very weak meaning skills (17 percent). These GE 6 students need instruction focused on vocabulary, background knowledge, and comprehension strategies.

5. Intermediate students with decoding and reading rate problems (7 percent). These GE 6–7 students need instruction to improve their print skills and increase their reading rate. Like the previous group, they also need to improve their vocabulary and background knowledge.

6. Low intermediate students with even GE 4–5 profiles in all components (16.5 percent). These students need instruction in both print and meaning skills, but they do not show signs of severe decoding or reading rate problems.

7. Low intermediate with severe decoding and reading rate needs (6 percent). The focus for these GE 4–5 students should first be their GE 3 decoding skills and very slow reading rate, then their vocabulary and background knowledge.

8. Beginning readers at GE 2 or below (7 percent). These students need instruction in basic phonics and word recognition.

9. Beginning readers at GE 2 or below with severe rate impairment (2 percent). They are similar to the previous group but show signs of underlying rate impairment.

10. "Should be in ESOL" students (10 percent). Although 90 percent of these readers are not native speakers of English, they have become fluent in basic oral English through long-term U.S. residency. However, their English reading is limited by a GE 2 English vocabulary. These students should be placed with teachers who are familiar with the vocabulary and written grammar needs of ESOL students.

Overall, the data indicate that many adult education students have reading scores that would place them in special education if they were children. In fact, more than 50 percent of these adult students were in special education or received other forms of extra help when they were in school.

By involving practitioners in administering the ARCS test battery, researchers showed that, with relatively brief training, adult education teachers can administer components tests accurately. This suggests that the field should provide opportunities for teachers to learn about diagnostic assessments as tools to guide student placement and teaching. To address the reading problems of adult students, practitioners, program directors, and policymakers will need to know adult students' strengths and weaknesses in the various components of reading.

The reading components Web site Rosalind Davidson is designing for NIFL is a direct outgrowth of the ARCS. This Web site will allow practitioners to enter students' scores on the several components of reading and match their students with clusters identified in the ARCS Study. The site will advise teachers about each

cluster and provide links to other sites and publications that will enable teachers to plan appropriate, focused lessons for their various types of adult readers.

Further Research

In the next phase of the study, NCSALL researchers are working with the Educational Testing Service to apply what was learned about the clusters to developing and testing a new instrument for assessing reading skills of adults, especially those in NALS Level 1. The research team will also continue to analyze the ARCS data and will make the data available to other researchers as well. The final report of the project will be available in 2003.

Publication:

- "How the ARCS was Done," *NCSALL Occasional Paper,* 2000.

Upcoming Publications:

- "Patterns of word recognition errors among ABE native and nonnative speakers of English," *Scientific Studies of Reading, 6*(3), 2002.

- "The Adult Reading Components Study ABE Students," *NCSALL Reports,* 2003.

Health and Adult Learning and Literacy Study

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1996–2005

Purpose

The Health and Adult Learning and Literacy (HALL) Study has three main goals: forge links between adult education and public health to enrich practice and research; build health literacy skills among adult learners and educators through well developed curricula and training; and build health literacy skills among public health and medical practitioners through courses, presentations, workshops, and scholarship.

Methodology

HALL is linking practitioners and researchers in adult education with practitioners and researchers in public health to inform and enrich practice and research. These links are being established through monthly seminars at the Harvard School of Public Health, local and national forums, participation in national working groups, a health literacy Web site, and published reports.

The project has produced a review of the literature and regularly updates an annotated bibliography. It also has produced materials (slide presentations and a video) for workshops with public health and adult education practitioners. Related to HALL, the Harvard School of Public Health course on health and literacy engages master's- and doctoral-level public health students as well as physicians in the Master of Public Health program. This course serves as a model for other schools of public health. The participation of NCSALL scholars in National Institutes of Health and Centers for Disease Control working groups addressing health disparities is bringing attention to the importance of literacy to health and the need for specific outreach to adults with limited literacy skills. In part because of this work, health literacy is now included in the goals for the nation in Healthy People (HP) 2010. Dr. Rudd prepared the background paper for action steps related to the health literacy goals for HP 2010.

HALL studies have been small qualitative inquiries that are building a comprehensive view of health communication issues from the perspective of adult learners and adult educators. Findings from these studies will lead toward the development of health literacy skill-based curricula for ABE, ESOL, and ASE classes.

Findings

The HALL researchers reviewed the medical and public health literature regarding links between health and literacy. The review notes that education may influence health through differences in income, lifestyle behaviors, problem-solving abilities, and values. In addition, the review points out that literacy is related to the ability of patients to describe symptoms and gain access to information about health and their rights to health care. The review concludes that a low level of literacy is associated with poorer health and has an impact on intermediate factors that influence health outcomes, such as participation in screening for early detection of disease. The review recommends strategies for improving communication with patients, including improving readability of materials, involving patients in designing more effective materials, and educating health care providers on the needs of low-literacy populations. The review also notes that adult education programs can provide opportunities for health educators to work with low-literacy populations to develop and test strategies for improved patient communication.

Moving beyond the literature to better understand practice in the field of adult education, researchers examined the experience of adult educators in Massachusetts who have integrated health units into adult education classes. This study focused on teacher perceptions of the advantages and disadvantages of a focus on health. Participating teachers indicated that health units helped support the teaching of reading, writing, vocabulary, and speaking skills. Teachers noted that they value health as a subject of study because it is relevant to students' lives and motivates students to read, write, and speak in class or on health issues. Many teachers noted outcomes outside the classroom as well. They highlighted students who had increased their activity within the community and reported examples of students taking healthful action for themselves. The HALL researchers concluded that the introduction of health topics into adult learning centers would be best served by a partnership between health educators and adult educators. Such a partnership must acknowledge and respect the primary mission of teachers to help students improve their language, literacy, and math skills. This exploratory study indicates that health as a subject area provides a vehicle for teaching basic skills, engaging adult students in practicing basic skills, and supporting health promoting change.

HALL researchers also conducted a national survey of adult educators designed to explore practitioners' perceptions about health issues and experience with health topics in their classes. The more than 600 respondents live in rural, urban, and suburban settings in the Northeast, South, West, and Midwest regions of the country. The vast majority (93 percent) of participating teachers viewed their classrooms as an appropriate setting in which to teach and learn about health.

Nutrition led the list of the most common health topics discussed in class. Teachers who had included health units viewed health lessons as enhancing skills in dialogue and discussion, vocabulary, reading, language, and critical thinking. These educators also viewed health as having an advantage relative to other topic areas in terms of contributing to student interest, participation, and motivation. Overall, the educators who had taught health gave high ratings on the scale that assessed the value of health as a content area supporting curriculum goals.

Most teachers defined health literacy as health information. The HALL team proposes a broader term: functional health literacy, defined as the ability to use written material, function in health care settings, and maintain one's health, as well as the skills and self-efficacy needed to request clarification from health professionals. The national study revealed the need for health educators to collaborate with adult educators to enlarge the concept of functional health literacy to include skills to promote effective communication about medications, access to health services, and patient advocacy. In turn, adult educators with experience in teaching health units need to collaborate with public health and medical professionals to develop curricula that foster functional health literacy while building basic skills.

A second national survey focused on state directors of adult education. The directors were asked to consider health within the context of adult education. They also were asked to offer priority ratings for health as a content area through which other skills could be taught. In addition, directors were asked to list barriers to incorporating health lessons into adult education and literacy classes, and to identify concerns or considerations that must be addressed. The directors offered relatively high priority ratings for health issues, with mean ratings between 3 and 4 on a 5-point scale (with 1 representing a low priority and 5 representing a high priority). The most frequently listed barriers were lack of curricula on health and lack of teacher training. They identified a variety of concerns, particularly structural issues and resources. Researchers concluded that health educators interested in integrating health and adult education must help the adult education system address its structural weaknesses and maintain a focus on helping adults improve language, literacy, and math skills.

NCSALL scholars conducted a series of inquiries related to people's abilities to navigate the health care system. Navigation studies include interviews with patients managing a chronic disease, focus groups with adult learners about health materials, walking interviews with adults trying to find their way around urban hospitals, assessments of hospital postings related to patient rights and responsibilities, assessments of the Medicaid application process, assessments of oral health materials, and assessments of the food stamp application process. Each of these

studies yielded information about institutional demands and literacy assumptions. Overall, the reading level of printed signs and materials far exceeded the reading ability of the average adult. Adult education programs can help students improve basic skills related to reading, oral presentation, and comprehension. However, the underlying assumptions of those in the health field about adult literacy skills are faulty and must be corrected. Jargon must be replaced by plain language, and forms and directives must be clear and well organized.

Further Research

NCSALL scholars are now involved in the first clinical trial related to literacy and health, *Arthritis Management: A Randomized, Controlled Trial of a Novel Patient Education Intervention*. Over the next five years, researchers will document the mechanisms by which low literacy affects the process and outcomes of arthritis management, document strategies that patients with low literacy skills use to learn about and manage their arthritis, and test the efficacy of an educational intervention that combines materials written in plain English with individualized, text-free, one-on-one education. HALL researchers will also develop and test a model curriculum for use in ABE and ESOL classes.

Publications and Electronic Products:

- "Integrating Health and Literacy: Adult Educators' Experiences," *NCSALL Reports #5*, August 1998.
- "Findings From a National Survey of State Directors of Adult Education," *NCSALL Reports #9*, January 1999.
- "Adult Educators' Perceptions of Health Issues and Topics in Adult Basic Education Programs," *NCSALL Reports #8*, August 1999.
- "An Overview of Medical and Public Health Literature Addressing Literacy Issues: An Annotated Bibliography," *NCSALL Reports #14*, January 2000.
- Health and Literacy Web Site: http://www.hsph.harvard.edu/healthliteracy/
- Health and Literacy Video: "In Plain Language" (December 2000).

Upcoming Publications:

- "Navigating Institutions," 2002.
- "Stories of Patients Managing a Chronic Disease," 2002.

Adult Development Study

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1997–2001

Purpose

The Adult Development Study looked beyond acquisition of language skills and increased content learning to explore the larger internal meanings for adults participating in three adult education programs. This study examined, from the learner's perspective, the educational practices and processes that support adult students in developing competence as workers, students, and parents, and at the changes these adults experienced in themselves as students as they participated in three adult education programs. This project is based on the hypothesis that coping with the demands of adult life requires a qualitative transformation of mind analogous to the change from magical to concrete thinking required of the school-age child or from concrete to abstract thinking required of the adolescent.

Beyond increasing understanding of how adult learners can be better supported in their programs, this research sought to improve teaching and learning practices, enhance program design, and deepen recognition of the value of using a developmental perspective to inform and broaden understanding of adult learners' experiences.

The Adult Development Study is based on Robert Kegan's (1982, 1994) theory of adult development. This is the first in-depth study examining how adults make meaning of their learning experiences in three adult education programs. Kegan and his team of researchers are interested in the deep changes students undergo in adult learning settings. A framework of adult learning as transformational guides their research. In this constructive-developmental perspective, a person's beliefs amount to an interpretive lens through which an individual makes meaning. This lens filters the way a person takes in, organizes, understands, and analyzes his or her experiences. Adults gradually evolve from a simpler way of knowing or underlying meaning system to another more complex way of knowing, depending on the available supports, scaffolding, appropriate developmental challenges, and encouragement of growth.

Kegan's theory identifies three qualitatively distinct ways of knowing most prevalent in adulthood: Instrumental, Socializing, and Self-Authoring. Each way of

knowing has its own logic, which differs from and builds on the previous logic by incorporating it in the new meaning system. A person's way of knowing frames and influences the experience of oneself, others, and events. To grow from one level to the next involves a qualitative shift in the ways an adult knows and makes sense of the world.

- People making meaning with an *Instrumental* way of knowing understand and organize their experience of self, others, and the world by orienting to specific, concrete, and observable behaviors and skills.

- People making meaning with a *Socializing* way of knowing have a more abstract and internal orientation to the world. The self, others, and the world participate in a swirl of values, loyalties and longer-term purposes underlying events, attributes, and preferences. Other people are experienced not merely as resources to the self but as sources of internal validation, orientation, or authority.

- People with a *Self-Authoring* way of knowing can reflect on their relationships with others rather than being identified with these others and unable to take a perspective on their relationships. With this way of knowing, people see themselves as an authority and can create their own belief and value system. People who demonstrate this way of knowing can not only identify abstract values, ideals, and longer-term purposes, but also prioritize and integrate competing values, judge the expectations and demands of others, and author an overall belief system or personal ideology.

Adults evolve from one way of knowing to another, more complex one at their own pace, depending on available and developmentally appropriate supports and challenges. Although these developmental processes are sequential, people of similar ages and life phases can be at different places in their development. Moving from one developmental stage to another involves increasing complexity in an individual's cognitive, emotional, interpersonal, and internal capacities. People's way of knowing shapes how they understand and construe their responsibilities and roles as parents, students, and workers.

Methodology

Researchers identified three Massachusetts programs that they considered "best practice" programs, were longer term (9 to 14 months), and intentionally incorporated a variety of supports to facilitate adult learning (i.e., tutoring, advising, and technology). Moreover, they sought programs that included practices and

curricula supporting enhancement of a specific competency in one of three adult social roles: student, parent, or worker. The research team chose a high school diploma program oriented to the worker role (a CEI adult diploma program delivered at the Polaroid Corporation), an Even Start family literacy site, and a pre-enrollment pilot program at a community college (Bunker Hill Community College).

Students included men and women ranging in age from their early 20s to mid-life. Most were immigrants, nonwhite, nonnative English speakers, and from lower socioeconomic backgrounds. Each site had a concentration of students in a specific age range. A total of 41 students completed the study (58 initially participated, but for a variety of reasons, 17 participants across the three sites either dropped out or stopped out of their programs).

Researchers used a variety of data collection methods, including open-ended qualitative interviews, developmental interviews, structured exercises, classroom observations, focus groups, and quantitative survey measures. The overarching research questions guiding the study were:

- How does developmental level (i.e., way of knowing) shape adults' experiences and definitions of the core roles they take on as students, parents, and workers? How do adults at similar levels of development construct the role demands and supports in each of these domains?

- How does developmental level shape adults' experience and definition of programs dedicated to increasing their role competence?

- What are adult students' learning motives, definitions of success, conceptions of the student role, and understandings of their teachers' relationship to their learning?

- What educational practices and processes contribute to changes in adults' relationship to learning (vis-a-vis motive, efficacy, and meaning system) and, specifically, to any reconceptualization of core roles?

Findings

Findings from the Adult Development Study address three different areas. First, researchers noted significant change in developmental level for some adults in these programs, even during a period as short as a year. They grew to demonstrate new and more complex ways of knowing. Also, as many were undergoing a process of acculturation, students with different ways of knowing demonstrated notable

differences in their descriptions of the changes related to the process of gaining fluency in English and the U.S. culture. Yet students with the same way of knowing described changes in strikingly similar ways.

Being part of a cohort (a tight-knit, reliable group with a common purpose) proved important to participants in different ways, depending on their way of knowing, at all three sites. The cohort supported and challenged adult students in their academic learning. In addition, the cohort served as a context in which students provided a variety of forms of emotional and psychological support to each other. Finally, the cohort challenged students to broaden their perspectives.

In each setting, the researchers discovered diverse ways of knowing among the students. The students demonstrated a range of ways of knowing very similar to the range found in previous studies with samples of native English-speaking adults. Students in adult education should not be presumed to construct experience with less complexity than anyone else. Some students with limited formal education demonstrated developmentally complex meaning systems, and people of similar ages or cultural backgrounds were sometimes distinguished by very different ways of knowing. The profile of adult students is not skewed toward the lower end of a developmental continuum.

The Adult Development Study suggests that developmental position is an important variable, even when adults have widely varied ages and backgrounds. In any classroom, teachers and program developers should be prepared to engage developmentally diverse populations with different developmental needs and ways of making sense of their experiences.

Familiarity with students' different meaning making systems can help explain why the same curriculum, classroom activities, or teaching behaviors can excite some students and leave others feeling lost or deserted. Adult educators will need to develop a wider variety of instructional designs that carefully attend to adult students with qualitatively different ways of knowing.

The third dimension of this "new pluralism" is a new understanding of possible outcomes of adult learning. Qualitative transformation in an adult's way of knowing, although not necessarily likely in as little as one year, is nonetheless possible. More transformation may occur over longer periods.

This study adds a new dimension to research on adult learning because much of the previous research considered students' perspectives in terms of program expectations and definitions of student needs, rather than considering students'

perspectives on their experiences, hopes, and needs. This study developed a better understanding of how adults perceive program learning, how program learning helps them enact a particular social role, and how adults change while participating in a program.

Publications:

- "Transformational Learning in Adulthood," *Focus on Basics*, December 1998.
- "The Power of a Cohort and Collaborative Groups," *Focus on Basics*, October 2001.
- "Three Developmentally Different Types of Learners," *Focus on Basics*, October 2001.
- "ABE/ESL Learners' Experience of Change," *Focus on Basics*, October 2001.
- "Toward a New Pluralism in ABE, ESOL, and GED Classrooms: Teaching to Multiple 'Cultures of Mind'," *NCSALL Reports #19*, 2001.
- "Toward a New Pluralism in ABE, ESOL and GED Classrooms: Teaching to Multiple 'Cultures of Mind'," Executive Summary, *NCSALL Reports #19a*, 2001.

Upcoming Publications:

- Two books are being prepared for an academic publisher for publication in 2003.

Adult Multiple Intelligences (AMI) Study

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1997–2001

Purpose

Teachers of adult students are often intrigued by their students' striking abilities in a number of skills and arts and wonder how this potential can be used to enhance learning in ABE, ESOL, and ASE programs. Howard Gardner's theory of Multiple Intelligences (MI), typically applied to children and young adults, may cast some light on adult students' strengths and abilities. Gardner's theory defines intelligence as the ability to solve problems or create products valued in one or more cultures or communities. MI theory counters the view that a single measure of intelligence, such as an IQ test, is adequate and contends that all humans have varying kinds and degrees of intelligences. Currently, eight forms of intelligence have been recognized: linguistic, logical-mathematical, spatial-visual, bodily-kinesthetic, musical, interpersonal, intrapersonal, and naturalist.

MI theory, which emphasizes the positive ways that people acquire knowledge and interact with the world, may be especially valuable to teachers working with adult students who have experienced repeated difficulties in academic learning. MI is not a theory of education, but it can inform good practice and expand the capacity of teachers to bring out the best in their students. The AMI Study has examined how MI theory can support and enhance learner-centered assessment and instruction in adult education programs.

Although much is known about how MI theory influences the learning of children and young adults, its exploration in adult learning is new. This study deepens the understanding of instruction and assessment strategies for adult students that draw on MI theory. The study also generates information about whether MI theory can prompt innovation and guide teacher change in adult education. The project's goal was not to assess a learner's or practitioner's particular intelligence but to help adults know themselves and their strengths. The study also enabled teachers to explore their own and their students' resistance to MI theory and practices. The teachers and coordinators who explored MI theory were primarily concerned with the following question: When teachers take MI theory into consideration, what happens?

Methodology

The AMI study employed a naturalistic, qualitative approach in which nine teachers, one guidance counselor, and one participant observer generated the data, and researchers conducted interviews over 18 months. The 10 educators and their approximately 120 students from Massachusetts, Maine, Rhode Island, Vermont, and Connecticut programs conducted research activities driven by questions based in MI theory. Two coordinators with expertise in MI theory worked with the teachers. The teacher researchers developed instructional approaches based on their interpretation of MI theory and involved their students in their research by talking about the theory and introducing MI teaching activities.

Each teacher developed a specific MI theory research question to frame her qualitative study. These open-ended questions allowed unanticipated data to emerge from the teaching experience. Teachers were required to rigorously observe and document the educational activities they designed, all interactions with students, and their own reflections and perceptions. Teachers recorded these observations in monthly journals that served as a source of project data. In addition, teachers devised a set of data collection strategies related to their specific research question, such as field notes, videos, or interviews between students and teachers. Each teacher analyzed her data and presented her findings, which NCSALL published.

The project coordinators collected data across the sites. Data sources included the teachers' journals, teachers' progress reports, biannual classroom observations, teacher and student interviews, e-mail correspondence, and notes from quarterly institutes held with the teachers. Project coordinators also collected demographic and baseline data on the teachers and students. The data were analyzed using an iterative approach employing qualitative research software. The patterns that emerged through these different kinds of data created a picture of student learning and teacher change.

Some teachers in the study focused on intelligence profiling, which refers to the practice of identifying each student's strengths and levels of ability across the eight intelligences. A few teachers looked to Gardner's definition of intelligence and its focus on problem solving as a touchstone that led them to emphasize MI's instructional applications. Several teachers interpreted MI theory's main message—that intelligence is pluralistic—as a call for new ways of teaching that use students' different intelligence strengths. The extent to which and the combinations in which the factors contributed to teachers' practices varied.

Findings

The AMI study supports the LPALS finding that learning is enhanced when instructional materials reflect the real world as well as students' current lives and prior experiences. Of all the lessons the AMI teachers documented, those most favored by students and noted by teachers for high student engagement had content reflecting student interests and realities.

Using materials or real experiences from students' daily lives in literacy instruction is not always possible or desirable. For example, when students are preparing to pass the GED tests, the multiple-choice tests dictate the content and skills that must be mastered. However, the ABE and GED teachers in the AMI Study found MI theory a useful framework for developing learning activities that helped students connect content from outside their experience, such as reading historical fiction or learning about the planets, to their own lives.

The Classroom Dynamics Study found "virtually no evidence of substantive learner input into decisions about instruction," despite teachers' professed goal to be learner-centered. In contrast, most AMI teachers felt they relinquished some control over instruction by giving their students a choice of learning and assessment activities and respecting individual ways of learning and knowing. The AMI teachers perceived a noticeable shift in the teacher-to-student power relationships in the course of the AMI study that they attributed to their MI-based practices. Over time, students began taking more initiative and control over the content and direction of the activities.

Traditional teaching approaches are no doubt a good fit with some students' learning preferences. For many others, however, the preference for workbooks and other passive learning methods is an unexamined assumption based on a lack of exposure to other ways of learning. Many students who were initially hesitant about or even quite negative toward MI-informed activities came to embrace them quickly. The project's experience demonstrates that an explicit introduction to MI theory and its relationship to unfamiliar, nontraditional activities can help overcome students' biases against these new learning experiences.

Several AMI teachers developed and adapted one or more MI self-reflection activities that fit their goals and contexts. They saw the potential of MI self-reflection to help students recognize their strengths and, for perhaps the first time, realize they are intelligent and able individuals. They wanted to use MI theory to help students feel positive about their abilities.

MI theory helped develop the learners' metacognitive knowledge about learning. MI self-reflection with students was an important preliminary step in identifying individual learning strategies. Four of the 10 teachers helped their students develop learning strategies based on their observations of the students' intelligence strengths.

From the research, the study team has developed a sourcebook of teaching tools, ideas, and activities. The sourcebook combines a summary of the research findings with examples of lessons that integrate MI theory into ABE, ESOL, and ASE instruction. In addition, a Web site developed for the project contains sample sessions from teaching activities, video clips from the classrooms, and other information about the project.

Publications:

- "Adult Multiple Intelligences," *Focus on Basics,* March 1999.
- "Multiple Intelligences in Practice: Teacher Research Reports from the AMI Study," *NCSALL Occasional Paper,* 2001.
- "AMI Literature Review," Spring 2001.
- AMI Web Site: http//:pzweb.harvard.edu/ami/

Upcoming Publications:

- "Open to Interpretation: Multiple Intelligences Theory in Adult Literacy Education," *NCSALL Reports #21,* 2002.
- *MI Grows Up: Multiple Intelligences in Adult Literacy Education.* A Sourcebook for Practitioners. New York: Teachers College Press. (Anticipated Spring 2003).

Classroom Dynamics Study

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1996–2001

Purpose

An understanding of what happens in adult education and literacy classrooms is crucial for policymakers, practitioners, and researchers alike. When policy is made in the absence of a basic understanding of classroom behavior, it may be impractical, ineffective, and even damaging. Most program administrators have some experience of what happens in their own classes, but they do not necessarily understand what happens in other programs. This lack of exposure is a barrier to using alternative strategies that might improve practice. Researchers must have a thorough understanding of the real practice of teaching and learning to pose and pursue relevant research questions.

The Classroom Dynamics Study provides a detailed and comprehensive analytical description of classroom behavior in ABE and ESOL classes. The ABE study addressed three research questions:

- What is the content of instruction and how is content structured?
- What social processes characterize the interactions of teachers and students in the classroom?
- What forces outside the classroom shape classroom behavior?

Methodology

To answer these questions, trained data collectors observed 20 diverse adult education classes in eight states (Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Tennessee, Pennsylvania, and California) on two separate occasions. Each observation lasted at least 90 minutes and was supplemented by a 45-minute interview with teachers. Classes represented a mix of location (urban, rural, and suburban), skill levels (beginning literacy through GED), institutional sponsorship (public school, community college, and community-based organization), instructional type (group-based, individualized, and a blend of both), and class size (from 1 to 15 students or more).

Findings

In every class observed, the basic unit of instruction was a lesson. In group-based instruction, lessons were universally prepared and delivered by the teacher, and in individualized instruction, lessons were embodied in the instructional materials students used. Lessons began with teachers directing students to do an activity. When the exercise was complete, an elicitation sequence followed, comprised of a series of teacher-posed questions and student responses. The majority of elicitation episodes consisted of a series of questions and answers designed to elicit correct, factual responses. In a minority of classes, researchers observed process elicitation, a series of questions designed to elicit student views and opinions. Elicitation of student expressions of creativity or critical thinking was evident in only 4 of the 20 class sites.

Researchers categorized classes into two general types. The first was discrete skill and knowledge instruction that was characterized by:

- Teacher-prepared and teacher-delivered lessons focusing on the conveyance of factual information and literal recall from students
- Use of commercially published materials
- Lessons that were organized into distinct time periods
- A focus on the skills that encompass traditional subject areas, such as reading, writing, and math

This category accounted for 16 of the 20 classes in the sample. The second category was meaning making instruction characterized by:

- A focus on problem solving, critical thinking, creativity, and social awareness in addition to basic skills
- Emphasis on process rather than structure
- Collaboration between teachers and students
- Use of authentic materials
- Teachers who functioned more as facilitators than conveyors

This category accounted for 4 of the 20 classes in the sample.

The instruction that researchers observed was nearly always teacher-directed and oriented toward discrete skills instruction and conveying concrete, factual knowledge. Moreover, the researchers' observations in ABE classes are similar to those reported by researchers in elementary school classes. This similarity may result from the teachers' socialization both as students and, in many cases, as teachers in the K–12 system. In addition, many teachers may believe that this approach is the fastest, most efficient way to help students move forward.

The teacher-centered, discrete skills–based learning process observed in most classrooms resulted in few opportunities for students to express their values, attitudes, or opinions. Teachers may consider such discussions deviations from the lessons they have planned or may be wary of creating the potential for acrimonious debate and confrontation. The lack of opportunities for students to express their values and opinions may impede development of important literacy and communication skills often used in work, family, and community contexts.

The purpose of instruction remains a question for the field of adult literacy. Most instruction is focused on teaching discrete skills, but a minority of teachers focus on such things as critical thinking, social awareness, oral proficiency, problem solving, and creativity. If the current norm is deemed deficient, professional development will be necessary to bring about a change in common practice.

Although similarities can be found between ABE and elementary and secondary education in terms of content and instruction, differences within classroom processes are apparent. Across the sample, researchers observed considerable tardiness and tuning out behavior. Students arrived up to an hour late, and tuning out behavior ranged from short episodes and staring into space to long episodes and sleeping in class. Such behavior was rarely negatively sanctioned, and teachers considered it part of the reality of the adult education classroom. Researchers noted that these behaviors are of concern, as they may be signs of an impending intention to drop out. Research over the next five years will help to clarify the links between these behaviors and dropping out and lead to strategies to prevent students from leaving programs before reaching their goals.

As part of the Classroom Dynamics Study, researchers also looked at social processes within classes. Although teachers indicated a strong desire to be learner-centered in their teaching approach, classroom observations indicated that instruction was highly teacher-directed. Researchers concluded that teachers are so socialized into a teacher-centered form of instruction that they teach in this way despite their intention to have a learner-centered approach to teaching. In their affective relationships with students, however, teachers behaved in learner-centered ways.

Being learner-centered appeared to be a set of values guiding teacher-student interaction rather than a teaching methodology.

In this study, community was defined as a collective sense of belonging among the members of a class. Community requires an environment of safety, trust, and peer acceptance. Although nearly all the classes observed exhibited some elements of community, in only about 25 percent was community pervasive. Researchers noted three factors associated with community:

- Students collaborating with each other
- Teacher support for a community environment
- Purposeful induction of new students into the group through introductions and inclusion exercises

Although teachers tried to create an atmosphere conducive to community, this was impeded by continuous enrollment. In most cases, students were simply asked to take a seat and expected to engage in their own learning. The relationship between community and educational outcomes has not been firmly established but merits further research.

External forces, including policy changes, often shape classroom processes. Researchers concluded that continuous enrollment and mixed skill levels are two of the most serious and understated problems facing ABE programs today. A dangerous cycle may be at work: High student attrition breeds continuous enrollment and mixed levels, continuous enrollment and mixed levels reduce the effectiveness of instruction, and that contributes to high student attrition. As continuous enrollment and mixed levels are most likely here to stay, researchers suggest a systematic search for the best practices in managing them and dissemination of these practices among practitioners.

Publication:

- "Classroom Dynamics in Adult Literacy Education," *NCSALL Reports #18,* 2001.

Classroom Dynamics in Adult ESOL Study

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1996–2001

Purpose and Methodology

The Classroom Dynamics in Adult ESOL Study is a companion to the Classroom Dynamics in Adult Literacy Study and employed the same methodology. Thirty adult ESOL classrooms were observed twice in 10 states, and teachers were interviewed. Data were analyzed using grounded theory.

Findings

Findings focused on three areas: the role of culture in adult ESOL classrooms, the interactions that take place in the classroom, and instruction. First, the research found that the dominant feature of classroom culture is a set of behavioral norms that result in a warm, nurturing classroom environment. This provides a safe and supportive place for learners to practice the acquisition of English. American culture also is an integral part of what is taught in adult ESOL classes. This included learning about American life and "functional culture," which focuses on the knowledge and skills needed to negotiate life in the United States. The American culture taught, however, was almost universally "safe" culture; that is, aspects of American culture that were unthreatening and not controversial.

Second, most interactions revolved around scripted speech, or speech elicited by lessons and activities planned by the teacher. Although spontaneous conversation sometimes occurred among learners, it was relatively rare and of two types. One, which predominated, was conversation related to what was happening in the class. This included such things as learners clarifying the teacher's directions among themselves and learners helping each other with exercises. The other, which was less common, pertained to what was happening in learners' lives outside class. Topics included information needed for daily living, problem solving, and learners' opinions on various matters.

The third focus, instruction, encompasses many elements. It involves the instructional strategies that teachers implement, the goals teachers have for implementing those strategies, the routines that are established, the materials used, and how the learners respond to all of these factors.

This study establishes that the basic organizing unit of instruction is the lesson—an activity prepared, initiated, and delivered by the teacher that is bounded by time. The research depicts common teaching strategies and types of materials that are incorporated into ESOL lessons. Almost all the teachers observed used commercially published workbooks that emphasized life skills and American culture. Common instructional strategies included grouping strategies; initiate, reply, evaluate (IRE) and choral responding; scaffolding; recasting; role playing/scripted dialogue; and corrective and helping feedback.

The research also differentiates among the types of lessons observed. An analysis of the lessons across cases reveals many similarities. This is not surprising because when teachers were interviewed, most made it clear that helping learners communicate in English was their primary objective. Nevertheless, there were key differences among the types of English acquisition activities in which learners participated. To understand these differences, this study drew on two recently developed typologies of adult literacy program and classroom practice that were conceptualized in NCSALL research. Drawing on those typologies made it possible to infer which types of lessons are most likely to promote true second language acquisition among learners.

A first draft of the Classroom Dynamics in adult ESOL report is complete. Revisions are being made prior to submission for external review.

Upcoming Publication:

- "Classroom Dynamics in Adult ESOL," *NCSALL Reports*, 2002.

Longitudinal Study of Adult Learning

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1997–2006

Purpose

The field of adult learning and literacy does not have reliable data on changes in current and prospective students' literacy skills over time. Moreover, no careful study has compared the experiences of adults who participate in literacy programs with those of a similar educational background who do not. Consequently, adult literacy programs' contributions to lifelong learning and social and economic development are not clear.

The Longitudinal Study of Adult Learning (LSAL) has built a data collection structure that is following adult high school dropouts over a period of seven years to examine patterns of program participation and learning, changes in literacy skills, and other important changes in their lives. Results will advance understanding of literacy development during adulthood, assist policymakers and program designers in developing more effective policies and programs, and serve as an invaluable resource for researchers interested in conducting secondary analyses of adult literacy development and learning processes.

The LSAL was designed to answer fundamental research questions at the center of adult education, learning, and literacy development:

- To what extent do adults' literacy abilities continue to develop after they leave school?
- What life experiences are associated with adult literacy development?
- What are adult students' patterns of participation over time in literacy training and education, and in other learning activities?
- What is the impact of adult literacy development on social and economic outcomes?

Methodology

The LSAL is a panel study; it follows a fixed sample of individuals over time. LSAL's data collection involves in-home, in-depth interviews and cognitive assessments of 979 adults aged 18–44 who initially lived in the Portland, Oregon, metropolitan area, do not have a high school diploma or equivalent, and are proficient English speakers. The participants are periodically interviewed and assessed, regardless of whether they enter, stay in, or leave adult education programs, or move to different geographical locations.

LSAL uses a comparison group design. Although none of the study participants had received a high school degree or a GED certificate at the start of the study, half are adult education program participants and half are nonparticipants. This allows researchers to identify differences between the two groups' experiences. Statistical methods control for the potentially confounding effects of other influences on comparisons between program participants and nonparticipants. Each wave of data collection consists of an in-home interview followed by cognitive assessments, including a standardized functional literacy assessment and measures of vocabulary.

Findings

In their review of baseline data, researchers learned that, contrary to what is often assumed, individuals who dropped out of high school did not necessarily have negative school experiences. Among the study's respondents, 40 percent reported "somewhat positive" or "very positive" school experience; only 28 percent reported negative experiences. Moreover, there is no statistically significant difference between the report of negative or positive school experience of those who have and have not participated in adult education classes. Individuals who have participated in adult education are highly similar in terms of demographics, previous K–12 experiences, literacy proficiencies, and other salient variables to their counterparts who have not participated. These findings counter the widespread notion that negative school experiences are a major impediment to improving outreach and retention in adult education programs and suggest that dropouts who do and do not participate in adult education classes are more similar than previously assumed.

The baseline data also indicated that a substantial number of adults in both groups within the study engage in self-directed learning activities to improve their basic skills or prepare for the GED tests. One in three (34 percent) who have never participated in adult education programs and close to half (46 percent) of program participants have studied by themselves to improve their skills or prepare for the GED. Moreover, individuals with the lowest literacy skills are most likely to engage

in self-study. Researchers also noted a positive relationship between self-study and program satisfaction: students who have studied by themselves are more likely to indicate that programs helped them improve their skill levels.

The LSAL researchers have found that program participation is a complex phenomenon more clearly understood from the learner's perspective than through outreach, recruitment, and retention data for students in a specific program. Dropping in and out of different classes might be interpreted as a series of failures. Students, however, consider moving in and out of programs as accumulating participation and developing over time. The common minimum of 12 hours of instruction included in administrative data underestimates students' participation patterns.

In both current and future waves of data, continuing LSAL research will look carefully at relationships between life contexts and activities and the development and retention of literacy skills. Important contexts being examined include social networks, workplaces, personal and family health, and literacy practices. Given the fragmented pattern of program participation and the critical role of the post-program context on skill development, programs need to broaden their support for learning beyond classes.

Further Research

Over the next five years, this project will continue to follow this cohort of high school dropouts, collecting data every two years. When complete, the data will provide a wide range of researchers with a tool for exploring the skills and lives of high school dropouts.

Publications:

- "Program Participation and Self-Directed Learning to Improve Basic Skills," *Focus on Basics*, April 2001.
- "The K–12 School Experiences of High School Dropouts," *Focus on Basics*, April 2001.

Upcoming Publications:

- "The Longitudinal Study of Adult Learning: Design and Methods," *NCSALL Occasional Paper,* 2002.
- "The Influences of Social Capital on Lifelong Learning Among Adults Who Did Not Finish High School," *NCSALL Occasional Paper,* 2002.

Staff Development Study

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World Education
1997–2001

Purpose

The Staff Development Study provides information that helps programs and policymakers determine the type of professional development efforts that are likely to help practitioners better serve adult students, as well as the supports needed to ensure that teachers benefit from their professional development. The study sought to understand how practitioners learn and change after participating in professional development activities. In particular, the researchers explored how teachers changed as a result of participating in one of three staff development models (multi-session workshops, mentor teacher groups, or practitioner research groups) and which individual, professional development, program, and system factors were most important in influencing that change.

Methodology

The four-year study involved 100 teachers from Maine, Massachusetts, and Connecticut in up to 18 hours of professional development in one of three models of professional development between July 1998 and June 1999. The three models were:

- *Multi-session workshops* in which up to 16 teachers came together for three or four full-day group sessions over a span of one to three months
- *Mentor teacher groups* in which up to five teachers met for four group sessions over four to six months, with two mentor observations of each teacher's classroom taking place between meetings
- *Practitioner research groups* in which up to seven teachers met over six months and conducted inquiry projects in their own classrooms or programs

The professional development topic was learner motivation, retention, and persistence. Designed by the research team, the professional development activity was facilitated by experienced teachers or professional development professionals in each state. The professional development sought to help participants learn more

about learner motivation, retention, and persistence; reflect critically about their work; and try new learning by addressing learner motivation in their classroom or program.

The workshop approach—the most common in the field—offered a general overview of a topic and was designed to help practitioners develop skills and knowledge they could use in the classroom. The mentor teacher approach included peer coaching and mentoring. Groups of five teachers worked with an experienced mentor teacher who helped them think about new teaching strategies and coached them in implementing these strategies in their classrooms. The practitioner research approach placed practitioners at the center of their learning. With the help of a facilitator and the other practitioners in their group, each teacher decided on a question to explore in her classroom and undertook her own research project.

The study had both quantitative and qualitative components. Each participant completed three questionnaires: the first before participating in the professional development, the second immediately after its conclusion, and the third a year later. The questionnaires asked about the teachers' backgrounds, program, and teaching situation; amount and type of other professional development (before, during, and after the NCSALL professional development); views about teaching; thoughts on the topic; and action on and off the topic (as a learner, a teacher, a program member, and a member of the field). In addition, 18 participants (2 from each model from each state) were selected randomly and interviewed before, immediately after, and one year after the professional development. The researchers observed their classes and interviewed their program directors. The 15 professional development groups—1 workshop, 2 mentor teacher groups, and 2 practitioner research groups in each of the three states—were audiotaped. Notes were taken as well.

"Change" was defined as differences in thinking and acting. When teachers gained knowledge about and addressed learner persistence, the research team characterized it as change "on the topic." Change "off the topic" was demonstrated by a range of differences in thinking and acting, such as when teachers learned about or tried a general teaching technique, expressed more confidence in their teaching, or increased their awareness of the field of adult education.

Findings

Teachers demonstrate four types of change in thinking and acting related to the topic of learner persistence: minimal or no change, thinking change, acting change, or integrated change. Although the majority of teachers gained some knowledge about the topic (sometimes just a concept or two) and many took at least some action in

their class or program (sometimes very minimal action), fewer teachers combined thinking and acting in an integrated and substantial way.

The study identified several factors related to teachers as individuals that were most important in understanding the amount and type of change. Those teachers who had a strong need to learn (either about the topic or to develop their theories of good teaching and student success), who first taught in adult education (rather than in K–12), who had fewer years of experience in adult education, and who did not have a master's or doctoral degree changed more than other teachers. Teachers who did not attend the professional development activity with a strong need to learn and had more formal education and experience in the field of adult education seemed more "settled."

The most important professional development factors included quality of professional development and number of hours in attendance. Higher quality groups (as rated by the research team) were related to greater teacher change. Skillful facilitation, strong group dynamics, and a balance between adhering to the model and adapting activities to meet participants' needs and expectations characterized high-quality professional development groups. In addition, the more highly the participant teacher rated the group (even when the researchers thought the professional development was weak), the more likely the teacher was to change. Finally, the amount of participation in the professional development was related to change. Dropouts and those who never attended (but initially registered) demonstrated significantly less change in the preferred direction than teachers who completed at least two thirds of the 18 hours of professional development.

Importantly, the model of professional development in which the teacher participated—workshop, mentor teacher group, or practitioner research group—was not as important a factor as the quality and hours attended. Although differences between professional development models were not significant, teachers who participated in practitioner research groups demonstrated the most overall change, largely via change off the topic in such areas as increased awareness of the field, greater appreciation for learning with other teachers, and knowledge of research. Practitioner research groups, however, also had the greatest percentage of dropouts (38 percent dropped out of practitioner research, versus 14 percent from the mentor teacher groups and none from the multi-session workshops). Mentor teacher group participants seemed to learn and do more to address learner persistence, and slightly more teachers who participated in this model put learning and action together in an integrated and substantial way.

The study identified important program and system factors that helped explain why some teachers changed more than others after participating in professional development. Teachers who received benefits as part of their compensation were more likely to put changes in thinking and acting together in an integrated and substantial way. Teachers with more freedom to design their own curriculum seemed to gain more from the professional development. To a lesser extent, teachers who had access to more preparation time and teachers who worked more hours per week seemed to change more. The qualitative data indicate that program context is also important. Teachers who had some voice in decision-making and worked in programs that had not yet implemented many of the strategies presented in the professional development activity seemed better able to advocate and take action than those with little voice in program decisions. Teachers in programs already implementing strategies presented in the professional development activity generally did not feel the need to initiate further change outside their classrooms. The study also found ample support for the commonsense idea that teachers with opportunities to talk or meet with other teachers in their programs also felt more support to take action based on what they had learned.

The study indicates that not every teacher will change as a result of staff development, even when they attend multiple sessions; for most, change more likely happens incrementally after many exposures to staff development. High-quality professional development has an impact on teachers, and more time in professional development leads to greater impact. Findings from the study suggest that professional development facilitators should be well trained, as the quality of the intervention is closely related to its impact, but professional facilitators are not required. Teachers supported to conduct professional development can be facilitators. Measures that support completion of professional development, including paid release time and easy access, are keys to ensuring greater change. Although the model of professional development was not a significant factor in explaining teacher change, differences in how teachers like to learn and dropout rates between staff development models indicate that teachers need access to multiple types of professional development. Careful and clear recruitment for the less familiar models of professional development (such as mentor teacher groups and practitioner research) is needed, as is understanding of teachers' different learning styles or "ways of knowing" that might make them more comfortable in one model than another. Professional development systems should also help teachers to identify their most pressing needs, ask for and attend professional development that matches those needs, and understand why and how to build theories of good teaching and student success. Program-based staff development could represent a better option for more isolated teachers who feel they benefit from contact with other teachers in and after staff development. Finally, teachers' working conditions (benefits, paid

preparation time, access to decision-making in the program) may play an important role in determining the degree of change teachers make after participating in professional development.

Publications:

- "The Working Conditions of Adult Literacy Teachers: Preliminary Findings from the NCSALL Staff Development Study," *Focus on Basics,* April 2001.

- "Pathways to Change: A Summary of Findings from NCSALL's Staff Development Study," *Focus on Basics*, June 2002.

Upcoming Publications:

- "The Characteristics and Concerns of ABE Teachers: Findings from NCSALL's Staff Development Study," *NCSALL Reports,* 2003.

- "Pathways to Change: A Study of Staff Development in Adult Basic Education," *NCSALL Reports,* 2003.

GED Impact Study

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1996–2006

Purpose

Changes in the economy in the last 25 years have been disastrous for those who left school before receiving a high school diploma. Today, a 30-year-old male who dropped out of high school earns one third less—after compensating for inflation—than a comparable worker earned in 1971. The GED remains the primary "second chance" route to high school certification for many adults who dropped out of school. More than 700,000 adult students take the battery of five tests each year, and approximately 500,000 test takers obtain the credential each year. Past studies claim that despite its popularity, the GED credential provides no real advantage in helping adults increase their labor market earnings.

The GED Impact Study addresses both problems of selection bias and the potential mis-specification that have limited previous studies. Through a series of linked studies using existing and new databases, the various research efforts associated with this project explore whether acquisition of the GED improves labor market outcomes for school dropouts. Two common problems have plagued past studies of the GED. The first is selection bias associated with the fact that GED holders are not a random sample of dropouts but a self-selected group. If dropouts who choose to obtain a GED have unobservable characteristics that are correlated with labor market outcomes, estimates of the causal effect of the GED on outcomes will be biased. Several of the papers in this study are designed to account for the effects of unmeasured variables and provide less biased estimates of whether the GED has a positive impact on a person's labor market outcomes. The second problem the various studies in this project addressed is that all previous GED research has considered any effects of the credential to be the same for dropouts who left school with weak cognitive skills and those who left with stronger skills. Several of the papers in this project use specifications that allow the impact of the GED on outcomes to differ for these two groups. The studies found that failure to account for the GED's potentially different impacts for low- and high-skilled dropouts may lead to incorrect inferences about the credential's economic benefits.

Methodology

To control for unmeasured variables, researchers had to identify groups of wage earners equal in motivation and GED ability. Fortunately, each state has its own standard for passing the GED, laying the foundation for what economists call a series of "natural experiments." For example, in New York, the standard for passing the GED is higher than in Connecticut. In any given year, a group that took the test in New York did not pass, despite having the same scores as a group in Connecticut that passed. Both groups of test takers share the same test scores and motivation level, but only the group in Connecticut has the GED. By studying a group such as this, researchers were able to overcome self-selection and further pinpoint the impact of the GED on wages.

The research team obtained data on wages from the Social Security Administration (SSA) and on test scores from the GED Testing Service and the state education agencies of New York, Florida, and Connecticut. To maintain confidentiality rules, SSA programmers merged the GED files with Social Security annual earnings. Analyzing this data carefully, researchers identified experimental groups of people who had the same GED scores but not necessarily the GED credential. They compared the labor market earnings of these groups.

Findings

The researchers have found 10 to 20 percent earnings gains associated with the GED. However, these earnings gains only appear for dropouts who left school with weak cognitive skills, and it takes several years for the gains to be realized. One of the first papers in the project found no statistically significant evidence that the GED increases the earnings of young, nonwhite male dropouts. Subsequent work has shown that the likely explanation is that a relatively large percentage of nonwhite male GED recipients earn this credential while in prison. Subsequent earnings for these individuals could be lower for several reasons, including the fact that they may still be in prison when earnings in later years are measured.

As the economic impact of acquiring a GED appears concentrated among the least-skilled GED holders, it seems important to concentrate resources on these individuals. GED preparation programs that help individuals with especially low skills thus have an important role. For all GED students, test score is a good predictor of earnings. Therefore, all students should be helped to improve their skills and knowledge.

In one of the project studies, the team used data from Florida to look at a group that had taken the GED tests and had similar pre-GED earning histories. Five years after attempting the GED, males who passed the exams had earnings 10 to 15 percent higher than males who did not pass. This study also found no earnings differences between successful and unsuccessful candidates for the GED credential in the years before they attempted the GED or for up to four years afterward. The GED's impact on earnings is similar for younger (age 16 to 21 when they attempted the exams) and older (21 and older when they attempted the exams) GED candidates. These findings highlight the need to assess program outcomes over longer periods of time.

In addition to economic impact, researchers examined implications for K–12 systems. One study used data from Florida and Texas to look at a sample of GED candidates 16 to 19 years old to closely approximate the population considered most "at risk" of failing state exit exams or of dropping out when a state moves to an exit exam system. Researchers found that a higher percentage of successful GED candidates from racial/ethnic minorities had taken the GED tests more than once than was the case for successful white candidates. Therefore, policies that limit the opportunities to retake the GED tests may tend to lower the percentage of GED holders who are minority group members. Researchers also find that raising the passing standard in a high-stakes testing system may encourage minority candidates (especially African Americans) to drop out of the system completely.

The GED Impact Study supports the contention that helping high school students stay in school and graduate should be a priority for the K–12 system. Most dropouts with low literacy skills can benefit from acquiring a GED, but it will lead them out of poverty only if they obtain postsecondary education or training. Unfortunately, all studies in the project have consistently shown that the average GED holder obtains very little postsecondary education.

Further Research

Further research is needed to understand why dropouts with strong literacy skills do not appear to benefit from acquiring a GED. As a substantial percentage of GEDs are obtained while the dropout is incarcerated, research also needs to determine the value of "prison GEDs." Over the next five years, this project will continue to explore the relationship between the GED and labor market outcomes and look at the GED's impact on participation in postsecondary education.

Publications:

- "Do Male Dropouts Benefit from Obtaining a GED, Postsecondary Education, and Training?" *Evaluation Review,* October 1999.
- "Do the Cognitive Skills of Dropouts Matter in the Labor Market?" *Journal of Human Resources, 35*(4), 748–754, 2000.
- "Cognitive Skills Matter in the Labor Market, Even for School Dropouts", *NCSALL Reports #15*, 2000.
- "The Devil is in the Details: Evidence from the GED on the Role of Examination Systems Details in Determining Who Passes," *NCSALL Reports #16*, 2000.
- "Estimating the Labor Market Signaling Value of the GED," *Quarterly Journal of Economics, 115*(2), 431–468, 2000.
- "Who Benefits From Obtaining a GED? Evidence from High School and Beyond," *The Review of Economics and Statistics, 82*(2), 23–37, 2000.
- "In Search of a Second Chance," *Monthly Labor Review,* December 2000.

Upcoming Publications:

- "The Economic Benefits of the GED: A Research Synthesis," *NCSALL Research Brief*, 2002
- "Evidence from High School and Beyond on the Extent to Which Female Dropouts Benefit from a GED," *NCSALL Research Brief*, 2002.
- "So You Want a GED? Estimating the Impact of the GED on the Earnings of Dropouts Who Seek the Credential," *NCSALL Research Brief*, 2002.

Assessment of Outcomes Study

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1996–2002

Purpose

Very little is known about the impact of adult education and literacy programs on the lives of their students. The Assessment of Outcomes Study explored the kinds of impact that participation in adult education and literacy programs has on adult students, their families, and their communities, as well as ways to assess this impact and measure instructional outcomes that predict that impact. The Assessment of Outcomes Study's research design incorporated a variety of approaches to reach an understanding of the impact of participation in adult education. The study's researchers examined reports of previous impact studies, analyzed the literature on performance accountability systems, and described the impact identified by students who were part of a longitudinal study. In addition, researchers explored how programs identify learning gains related to their curriculum.

Findings

The project published a policy paper that explored the potential for applying performance accountability to the field of adult education and literacy. Drawing on literature from education, government, and management, as well as from interviews with researchers and adult educators at the state and national level, the author identified four principles that should inform a performance accountability system for the field. First, there is a need to agree on a clear definition of the purpose of the adult education and literacy system and the objectives needed to achieve that purpose. Second, relationships of mutual accountability should be established so that the multiple stakeholders—including students, teachers, administrators, policymakers, and funding agencies—can have a role in building effective adult education and literacy programs. Third, the system must develop the capacity to both perform (achieve desired goals) and be accountable (to document achievements and measure results). Finally, better tools to measure performance are needed.

Moving from a policy perspective to the lessons of research and evaluation studies, the researchers reviewed outcome and impact studies from the last 40 years, including national and state-level studies, and studies of welfare, workplace, and

family literacy programs. Of these studies, 23 were judged to be credible from a research perspective and served as the basis of case studies. Using the case studies, researchers conducted a qualitative meta-analysis in which each study's findings were treated as evidence to weigh in drawing conclusions about program effectiveness on outcome and impact variables.

The study concluded that participation in adult education programs is likely to result in employment and wage gains and has a positive influence on continuing education, the likelihood of passing the GED tests, and students' self-image. Students reported that participation in adult education programs led to improved basic skills, increased involvement in their children's education, and achievement of personal goals.

Researchers also looked at data from the Center for Literacy Studies' Longitudinal Study of Adult Literacy Participants in Tennessee that from 1991 to 1995 assessed the long-term impact of adult literacy programs. The study identified types of impact on adult students' lives. Whereas the original study focused on changes in the lives of 450 participants, NCSALL researchers examined the responses of the 199 participants who took part in follow-up interviews one year after they first enrolled in a literacy program. These students were asked 116 questions about their employment, literacy practices, involvement with children's schooling, community awareness, self-esteem, and life satisfaction. Researchers sought answers to the following questions:

- What aspects of a student's life change after one year of participation in an adult literacy program?

- Will substantial participation in an adult education program produce more change in various aspects of life than limited participation?

After participating in a program even for a short time, the adult students reported positive changes in some aspects of their lives. Students reported increases in their rates of employment, self-esteem, participation in community organizations, and improvements in some areas of literacy practice. However, participants did not report significant changes in community awareness or in how they felt about their communities. The study did not identify a significant increase in reading or involvement in children's education. Participants with limited hours of classroom time were less likely to report change than those who had substantial participation.

Findings from this data support the conclusion that participation in adult education is a positive factor in employment and self-esteem. Although other factors

could have been responsible for the impact on both employment and self-esteem, the study suggests that taking the step to enroll in an adult education program—even one without a specific workforce focus—may lead to increased self-esteem and the additional step of seeking employment. Although a focus on workforce preparedness might strengthen employment outcomes, programs that focus only on basic skills development may also support employment outcomes. The study suggests that information about the curriculum and instructional approaches of the programs is needed to understand factors that contribute to a positive impact on students' lives. This information might determine program modifications that could lead to a greater positive impact.

To complement the quantitative findings noted above, a learner-identified outcomes study brought a student perspective to the research on the outcomes and impact of participation in adult education. The study used a life history methodology to build an understanding of outcomes and impact. Ten participants were selected from the Tennessee Longitudinal Study of Adult Literacy Participants. Interviews, usually conducted in participants' homes, covered adult education experiences, family and work lives, childhood, earlier schooling, and life changes attributed to participation in the adult literacy program. Outcomes of participation in literacy classes that the adults in this study described included new skill or education gains but also went beyond this.

Nine of the participants reported acquiring new literacy skills by participating in adult literacy programs. They applied these skills to everyday activities, such as filling out a money order or reading a map. Participants also described increased access to and understanding of expository text. Some reported becoming better able to carry out such activities as job reports, and several noted that reading had become a part of their lives instead of a tool they used with difficulty. Study respondents also described positive changes in their sense of self, which they attributed to participation in adult literacy programs. Some had lost a sense of shame about being in a literacy class, and others who had obtained a GED felt a sense of accomplishment. Students also reported having a stronger voice and new opportunities to express themselves.

The research that comprises the Assessment of Outcomes Study offers lessons for adult educators. First, the research suggests the need to be aware of each student's needs, goals, and perspectives and to make conscious efforts to incorporate them into instruction. In addition, findings point to the need for an awareness of the multiple and complex outcomes of adult education participation in students' lives and of standardized tests' limitations in measuring many of these outcomes. Moreover, students should be helped to understand the connection between learning

and life by exploring the outcomes they desire. Finally, the field needs to focus more attention on developing performance accountability in programs to help ensure that student outcomes are met.

To support that effort, researchers undertook a two-year action research project with teams of teachers and administrators from three programs. The teams examined their existing documentation practices, were introduced to possible approaches to documentation, and developed their own processes using a cycle of planning, implementation, and evaluation. The study found that programs can develop their own approaches to identifying student goals and measuring progress toward those goals but that no mechanism currently exists to report these types of outcomes to the National Reporting System (NRS), the federal government's accountability system for the states. The project also validated the action research approach as an effective way to train staff to undertake these processes; however, this approach requires support to teachers that most programs do not provide. The team produced a handbook that gives programs the information they need to replicate this project.

As the final piece of this project, researchers interviewed practitioners from six states to ascertain the impact of welfare reform and the Workforce Investment Act at the classroom level. State adult education directors reported such changes in practice as realignment of curriculum and instructional goals with NRS levels, increased focus on the relationship between program improvement and learner outcomes, new goal-setting and documentation procedures, adoption of statewide intake forms, and increased use of data to inform decision-making as well as support programs and instructors. Some also noted a shift to a younger, needier, harder-to-serve client population as well as decreased funding related to accountability and for professional development.

Publications:

- "Contested Ground: Performance Accountability in Adult Basic Education," *NCSALL Reports #1,* 1998.
- "The Outcomes and Impacts of Adult Literacy Education in the United States," *NCSALL Reports #6,* 1999.
- "The Outcomes and Impacts of Adult Literacy Education in the United States, Appendix A: Abstracts of Studies Reviewed," *NCSALL Reports #6A,* 1999.

- "'I've Come a Long Way': A Report on the Study of Outcomes of Adult Literacy Programs," Proceedings of the Eastern Regional Adult Education Research Conference, March 16–18, 1999.
- "Documenting Outcomes for Learners and Their Communities: An Action Research Project," Proceedings of the Eastern Regional Adult Education Research Conference, March 16–18, 1999.
- "Changes in Students' Lives One Year After Enrollment in Literacy Programs: An Analysis from the Longitudinal Study of Adult Literacy Participants in Tennessee," *NCSALL Reports #11*, 2000.
- "One Year After Enrollment in Literacy Programs: A Study of Changes in Learners' Lives," Proceedings of the 41st Annual Adult Education Research Conference, 2000.
- "Action Research on Documenting Learner Outcomes: Can We Move Beyond the Workforce Investment Act?" Proceedings of the 41st Annual Adult Education Research Conference, 2000.
- "Issues of Action Research and Adult Basic Education," Proceedings of the 41st Annual Adult Education Research Conference, 2000.
- "'I've Come a Long Way': Learner-identified Outcomes of Participation in Adult Literacy Programs," *NCSALL Reports #13*, 2000.
- "Outcomes of Participation in Adult Basic Education: The Importance of Students' Perspectives," *NCSALL Occasional Paper*, 2000.
- "'I've Come a Long Way': Findings for Two Studies of Outcomes of Participation in Adult Education," Proceedings of the 31st Annual Standing Conference on University Teaching and Research in the Education of Adults (SCUTREA), July 2001.
- "How Are We Doing? An Inquiry Guide for Adult Education Programs," *NCSALL Teaching and Training Materials*, 2001.

Upcoming Publications:

- "Documenting Outcomes for Learners and Their Communities: A Report on a NCSALL Action Research Project," *NCSALL Reports #20*, 2002.
- "Living With it from the Top Down: ABE as a Context for Federal Policy Implementation," *NCSALL Occasional Paper*, 2003.

Equipped for the Future Study

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1999–2001

Purpose

Equipped for the Future (EFF) is the national standards-based system reform initiative of the National Institute for Literacy (NIFL). EFF's multi-year program of research, development, and implementation seeks to enable the field to align its practices (curriculum, instruction, assessment, and reporting) with the goals its students define as well as with national policy goals. This NCSALL project helped NIFL put into place a research and evaluation program focused on understanding the impact of implementing the EFF framework in local programs and on developing an assessment framework for the 16 EFF standards. A group of NCSALL scholars acted as a technical advisory team to the project.

Methodology

The work focused on three primary tasks:

- Developing a logic model for evaluating program implementation and a draft observation protocol

  The Center for Literacy Studies (CLS) documented the impacts of EFF implementation in 11 program sites in Pennsylvania; analyzed teacher and student data from EFF development (1994–1998), and used the results of activities to draft and refine a logic model for evaluating program implementation.

- Developing the EFF assessment framework describing a continuum of performance for each standard, with benchmark tasks and transition levels

  CLS coordinated the work of documenting student performance of EFF standards to develop a continuum of adult performance for each standard. Using a common protocol and documentation tools CLS developed, teachers in 20 adult education programs in five states developed performance tasks for each standard and documented student performance of the task. Based on this field documentation, preliminary performance continua were drafted for

selected standards, protocols and tools were revised, and a second round of field research was planned.

- Developing and revising the Literacy Pro prototype EFF student information management software

  CLS worked with Literacy Pro software systems to develop a version of its program management software to collect and report data on student progress using the EFF standards. Five programs reviewed a beta version of the software, and revisions were incorporated into the prototype.

Publications:

- "A Performance Framework for Teaching and Learning with the Equipped for the Future Content Standards," *Adventures in Assessment, 12,* Winter 2000.

- "Assessing Student Progress Toward the Equipped for the Future Standards: Issues and Lessons to Date," Proceedings of the 41st Annual Adult Education Research Conference, 2000.

- "Results That Matter: An Approach to Program Quality Using Equipped for the Future," National Institute for Literacy, 2001.

- "Teaching From Strengths: A New Research Base," Proceedings of the 31st Annual Conference of the Standing Committee on University Teaching and Research in the Education of Adults (SCUTREA), 2001.

LABSITES

During its fifth year, NCSALL established two labsites, one for adult ESOL students at Portland State University and one for ABE and ASE students at Rutgers University. The labsites are partnerships between service delivery programs and research institutions and pursue a systematic program of inquiry that is the result of joint planning. This inquiry takes an integrated approach, including both basic and applied research and employing both quantitative and qualitative methods. The labsites will:

- *Provide a demonstration of adult learning in programs that have sufficient support and are informed by research.* This effort will lead to meaningful and useful descriptions of proven program models that can be replicated.

- *Develop credible evidence about the impact of participation in programs that provide high-quality instruction and sufficient support services.* This will answer policymakers' questions about achievement and the impact of adult education services and set a benchmark for judging program model effectiveness.

- *Improve research-based professional development.* Inservice and preservice teachers will be able to observe good instruction in the labsite and practice teaching under the supervision of labsite staff. Labsites can serve as a venue for piloting a certification process for teachers and for training new researchers. The labsite staff will also share their expertise and experience through professional development programs for practitioners and policymakers.

- *Ensure a stable and convenient venue for research.* Labsites will make research easier and support the use of technology, such as videotape, that can enhance both professional development products and research efforts. If random assignment is needed, a labsite will be able to provide it.

NCSALL will establish a system of cooperating labsites. This system will start with two NCSALL labsites. If NCSALL's budget proves sufficient or if funds from other institutions become available, one or two additional labsites will be established. Labsites may grow out of the work of other research centers as well, and these could join the NCSALL system if they agreed to adhere to design standards for management, practice, and research. The NCSALL design standards for its labsites relate to management, practice, research, and professional development.

Management

A labsite is made up of researchers and all or part of an existing or newly established adult education program. Each labsite has a director who manages the instructional program development and research project implementation. The adult education program director continues to manage its day-to-day operations. The labsite director, program director, researchers, practitioners, and students collaboratively manage the classes that are part of the research effort.

Everyone involved in a labsite must be committed to providing students with instruction and support services based on research, theory, and good practice and must acknowledge the labsite's dual purpose of educating adults and pursuing research. Each labsite is autonomous and has its own management team but agrees to participate in common activities and discuss major decisions with the other labsite directors.

One common activity is regular structured communication. Labsite directors meet at least twice each year in person and twice each year through conference calls. They also participate in regular Internet conversations that include all of the staff of the labsites. Labsite staff visit other labsites to learn directly from each other's work.

Practice

A labsite's instructional activities take place under design standards that have grown out of the first five years of NCSALL research, other research, adult education theory, and acknowledged good practice in the field. These general standards apply to all types of programs. Although these standards might be reviewed and revised each year, they currently encompass the following:

- Students are treated as adults and are full partners in their learning.
- Outreach and recruitment procedures help potential students make informed decisions about participation in the program.
- Intake, orientation, scheduling, location, classroom design, and support services are structured to help students persist in their learning.
- Each student's goals, strengths, and weaknesses are assessed, and instruction is focused on helping students reach their goals, build on their strengths, and address their weaknesses.

- Teachers are committed to work long-term and provided with pay and benefits sufficient to support that commitment.

- All teachers are provided with inservice training and opportunities to share experience with other teachers. This training provides teachers with skills and knowledge about teaching adults, teaching the specific content area of their classes, and reflective practice.

- Instruction is based on research, accepted theory, and acknowledged good practice, and informed by formative evaluation procedures that include teacher reflection and inquiry.

- Classes use a form of managed enrollment that will place limits on how often new students enter a class and will have procedures for integrating new students into the classroom culture.

- Computer, media, and communications technology are integrated into the instructional design.

- Students are provided with materials that they can take home with them and keep after they leave the program.

- Assessment of progress is integrated into classroom activities, and students and teachers use these assessments to inform decisions about instruction and curriculum.

Along with these program standards, each labsite develops instructional models that serve the needs of the beginning ESOL and ABE/ASE populations. These instructional models are developed based on research, theory, and good practice, and are informed by a panel of experts specific to each labsite's needs.

Research

All labsites establish a Labsite Student Study (LSS) that assesses and follows cohorts of students to measure achievement and impact. The LSS is modeled after the Longitudinal Study of Adult Learning managed by Portland State University. In addition, each labsite undertakes its own research projects, but researchers agree to use common measurement tools and research methods whenever possible to facilitate cross-labsite comparisons. Labsites also agree to participate in collaborative research.

A major issue for both the LSS and other labsite research is the identification of control and comparison groups. The approach that works for the LSS may differ from that of the other research projects. The LSS might need comparison groups from non-labsite programs or the general population. The research projects may be able to use random assignment within the labsite or between the labsite and a nearby program.

Another major research issue is the identification of assessment tools to measure learning achievement. The long-term solution to this issue is the development of new assessment tools, but this is an expensive undertaking. Until those tools are available, NCSALL will use existing tools, augmented by measures developed for each study. This approach worked well for the Longitudinal Study of Adult Learning.

Professional Development

Staff and scholars connected to the labsites are a valuable national resource, a highly experienced group immersed in the process of turning research into practice. They will participate in professional development activities to share what they learn with policymakers and practitioners. Some of these activities take the traditional forms of writing for publication and presenting at conferences and meetings. In addition, each labsite has its own professional development program and participates in a program of publishing and training coordinated by World Education.

DISSEMINATION

The goal of NCSALL's dissemination initiative is to improve the quality of practice in adult learning and literacy by putting the results of research in the hands of policymakers, practitioners, and scholars. NCSALL's research only becomes valuable when it is used to inform policy or practice. For stakeholders to use it to improve practice, NCSALL must provide research in formats relevant to them. Underlying this effort is a philosophy that dissemination is not only one-way; instead, practitioners inform research and researchers inform practice.

Over the past five years, NCSALL has presented and distributed relevant information and research findings to the field through print, electronic, and face-to-face communication. NCSALL has produced and widely disseminated several publications (See Table 1). Each publication is designed for specific audiences to maximize effectiveness. However, NCSALL has recognized that relying only on print communication is insufficient. With computer technology more readily accessible than ever before, NCSALL has used electronic communication as another key strategy. NCSALL's various Web sites are easily navigated, provide current and comprehensive information about NCSALL's activities, and offer an opportunity to download materials. Rounding out NCSALL's communication strategy is face-to-face interaction. NCSALL has participated in the field's major national conferences, initiated and supported several local workshops and seminars, and worked with practitioners who acted as practitioner leaders as part of the Practitioner Dissemination and Research Network (PDRN). The exchanges that take place during these events encourage the use of NCSALL research findings in practice. Building on the PDRN experience, NCSALL is now working with three states and several national organizations to develop a national Connecting Practice, Policy, and Research (CPPR) initiative that will build a channel for dissemination of research to (and feedback from) practitioners and policymakers.

Print Dissemination

NCSALL has produced six different types of print publications, all designed to reinforce and highlight its mission of connecting research and practice. Table 1 lists NCSALL publications, their target audiences, and distribution. (For a full publication list, see Appendix A.)

Table 1: NCSALL Print Dissemination

Product	Number published 1997–2001	Target Audiences	Key Dissemination Efforts
Focus on Basics	17 (12,000 copies per issue)	Practitioners	• Ship copies to almost every state for distribution via the state ABE system • Make low-cost bulk and individual subscriptions available • Make it possible to download from NCSALL Web site • Respond to numerous requests from states and professional organizations for additional copies for professional development activities
NCSALL Reports	20 (500 copies each)	Researchers	• Mail approximately 280 complimentary copies to key people in the field • Make low-cost orders available • Make free download available from NCSALL Web site
NCSALL Occasional Papers	6 (500 copies each)	• Researchers • Practitioners • Policymakers	Same as *NCSALL Reports*
NCSALL Teaching and Training Materials	3 (500 copies each)	• Teachers • Staff Developers	• Targeted mailings to staff developers in each state • Make available for ordering at low cost • Make free download available from NCSALL Web site
NCSALL Research Briefs	22 (2,500+ copies each)	• Policymakers • Practitioners • Researchers	• Include in twice-a-year mailings to approximately 2,500 people • Distribute free at several national and local conferences • Make free download available from NCSALL Web site
The Annual Review of Adult Learning and Literacy (published by Jossey-Bass)	Three volumes (1,000 copies each)	• Policymakers • Scholars	• Market and sell with academic publisher (Volumes 1–3 with Jossey-Bass Publishers) • Promote at national and state-level conferences and events • Mail flyers to targeted groups

Focus on Basics

Focus on Basics is a theme-based quarterly publication of 24 to 36 pages. Launched in February 1997, it is designed to connect research with practice by making adult education research more accessible to practitioners. Each issue contains one or two articles than provide an overview of the theory and research related to the theme and three or four articles by practitioners, who provide examples of how these theories are put into practice. To ensure *Focus on Basics* appeals to a national audience, NCSALL chooses writers and editorial board members for each issue who represent the field's geographic, programmatic, and ethnic diversity.

A 1999 impact evaluation revealed that subscribers not only read but also use *Focus on Basics.* They report sharing the information with colleagues and that *Focus on Basics* often leads to positive programmatic changes. Readers say they gain a better understanding of adult basic education research—specifically practitioner research—resulting in greater participation in practitioner research. Professionals in the field also say that *Focus on Basics* has helped them "identify with a larger professional network than prior to receiving the publication . . . [and] locate themselves within a national field."

Some teachers who participated in NCSALL focus groups noted that they liked *Focus on Basics* but were so concerned with immediate classroom needs that they turned to new classroom materials rather than *Focus on Basics*. In response, in 1999, NCSALL introduced a new *Focus on Basics* column: Focus on Teaching. This column provides readers with activities they can use in their classrooms. Focus on Teaching not only meets their need for classroom activities, it also encourages teachers to become readers of research.

Focus on Basics, in partnership with the National Institute for Literacy, launched an electronic discussion list in February 1998 to allow practitioners to communicate with researchers and other article authors. This is an additional way for NCSALL to reach people in the field and enliven discussion around key issues.

NCSALL Reports

NCSALL Reports are full reports of the NCSALL research studies that have not been published elsewhere. Each NCSALL research team prepares one or more reports as they produce findings. These reports help policymakers and practitioners gain an understanding of the latest research findings on key topics.

NCSALL Reports are sent to a complimentary mailing list of about 280 individuals, including all state adult education directors and state literacy resource center personnel, as well as other key people in the field (such as researchers, national-level policymakers, and congressional staff). In addition, reports are available on the NCSALL Web site and announced on various listservs (such as the NLA and NIFL listservs). Copies also are sent to ERIC for distribution. Bound, printed copies are available for a small fee (to cover printing costs), but most people choose to download the reports from the NCSALL Web site.

NCSALL Occasional Papers

NCSALL Occasional Papers provide information on research processes, summarize research for policy purposes, and provide an opportunity for NCSALL scholars and their graduate students to publish research.

NCSALL Teaching and Training Materials

To ensure research findings reach practitioners, NCSALL develops materials that teachers or staff developers can use directly. These materials are generally in the form of guides or manuals that teachers can use in their classrooms to engage students in discussing research results, or that staff developers can use in training adult literacy practitioners.

In its first five years, NCSALL published three complete *Teaching and Training Materials* and drafted several *Study Circle Guides,* which will be completed in 2002 or 2003. Teaching and training materials provide complete information for teachers or staff developers to use these materials effectively. Each study circle guide provides steps for organizing and facilitating a nine-hour study circle on a NCSALL research topic, using findings from NCSALL studies.

All NCSALL teaching and training materials are distributed free of charge to state literacy resource centers and are available for purchase through World Education for a small fee. Study circle guides in draft form have been distributed to professional development staff in several states, who are using them and providing feedback NCSALL can incorporate in the final publications.

NCSALL has developed a set of teaching materials for GED teachers to use to engage their students in discussing NCSALL's GED research results. Entitled *Beyond the GED: Making Conscious Choices about the GED and Your Future,* the materials were tested in a GED class and reviewed by the GED research team before being finalized. These materials, featuring the results of five studies of the economic

impact of the GED synthesized into a three-unit curriculum for GED teachers to use with their students or for teachers to use for their own professional development, have already been used extensively. NCSALL's Web site statistics show an average of 300 copies per month downloaded in the past year.

NCSALL Research Briefs

NCSALL Research Briefs—succinct summaries of NCSALL findings that also provide implications for practice, policy, or further research—are cost-effective ways to reach a great number of people in the field. They are NCSALL's primary research "sound bites." NCSALL disseminates more than 10,000 copies of research briefs each year through mailings and distribution at events.

The Annual Review of Adult Learning and Literacy

The Annual Review of Adult Learning and Literacy is a series of volumes of commissioned articles on the major issues, latest research, and best practices in the field of adult basic education. It is intended primarily for policymakers and scholars and is a valuable resource for those seeking information on key topics in the field of adult literacy.

The first three volumes have been published through Jossey-Bass. In addition to relying on Jossey-Bass's advertising and marketing strategies (such as direct mail promotions for each new release, bookstore and corporate sales, special sales to resellers, and catalog listings), NCSALL has marketed and promoted the book via direct mail, face-to-face communication, and online announcements. Before each volume is released, NCSALL prepares chapter summaries and posts them on its Web site. The book is announced on all NIFL listservs, and NCSALL staff promote it at national and local conferences and workshops. The first two volumes were reviewed in key adult literacy publications in the United States and elsewhere (e.g., *Canadian Journal of the Study of Adult Education, Adult Education Quarterly*), and several universities have used its articles in graduate-level adult literacy and ESOL courses. NCSALL also has worked with the American Library Association to promote the sale of the *Annual Review* to university libraries across the country.

Electronic Dissemination

NCSALL's Web site provides timely information about all of NCSALL's activities and publications to Internet users around the world. The home page is updated regularly, indicating new products (e.g., new publications, related Web sites),

updated and expanded links to other organizations' Web sites, and new features. Through easy navigation, the site enables visitors to link to information on NCSALL activities and publications, and they can read, download, print, or order most NCSALL publications, including full NCSALL reports, occasional papers, teaching and training materials, research briefs, and all *Focus on Basics* issues.

Since NCSALL added the ability to order its publications on its Web site in December 2000, the majority of new *Focus on Basics* subscriptions are ordered online. Individuals may also add their names to the NCSALL mailing list online. This mailing list has increased each year, exceeding 2,500 names by the project's fourth year.

In the past year, NCSALL has improved its ability to monitor Web site traffic. In addition to knowing the number of "hits" to the home page, NCSALL is now able to track the number of publication downloads. NCSALL Web site statistics (gathered since December 2000) indicate that an average of more than 5,000 NCSALL reports, occasional papers, and teaching and training materials are downloaded each month.

In addition to this primary Web site, NCSALL also has sites for several research studies (Adult Multiple Intelligences, Health and Adult Learning and Literacy, and the Longitudinal Study of Adult Learners) and for its two labsites.

To further increase its visibility among adult literacy and adult basic education practitioners, researchers, scholars, and policymakers both within and outside the United States, NCSALL has dedicated significant time to developing, updating, and expanding its database. Using this information, NCSALL has created specific lists of people (e.g., of staff development contacts in each state) to receive electronic announcements about NCSALL publications and activities. NCSALL also uses an internal list serv (comprised of approximately 60 NCSALL staff at all partner institutions) to provide quarterly updates of NCSALL dissemination activities.

Table 2: NCSALL Electronic Products

Categories	Products
Video Health and Literacy Video	*In Plain Language*
Primary Web site NCSALL	http://ncsall.gse.harvard.edu
Research Project Web sites Health and Literacy	http://hsph.harvard.edu/healthliteracy
Adult Multiple Intelligences	http://pzweb.harvard.edu/ami/
Longitudinal Study of Adult Learning	http://www.lsal.pdx.edu
NCSALL Labsites Web sites National Labsite for Adult ESOL website	http://www.labschool/pdx.edu
National Labsite for ABE/GED	Upcoming 2002
Listservs NCSALL discussion list (internal to NCSALL staff)	NCSALL lists@worlded.org
Focus on Basics discussion list (national NIFL listserv moderated by NCSALL staff)	Nifl-fobasics@literacy.nifl.gov
PDRN discussion list (internal to NCSALL staff)	Pdrn-lists@worlded.org

Face-to-Face Dissemination

Conference and Workshop Participation

NCSALL staff regularly present research results at national conferences related to adult learning and literacy, sharing knowledge with policymakers and scholars in the field. Most NCSALL researchers also attend local and regional conferences and seminars (many sponsored by state departments of adult basic education) to interact directly with practitioners. Participation in conferences and seminars at this level helps researchers understand practitioners' views and ideas about integrating research into practice, and practitioners gain firsthand knowledge of research designs and results.

NCSALL has also sponsored national and regional policy briefings for state and local program directors and will continue to do so even more extensively in its second phase. At these briefings, NCSALL presents key findings from its research, and directors are encouraged to discuss the implications of these findings for program design and funding in their area.

Each year, NCSALL exhibits at the national conferences of the major organizations connected to the fields of adult learning and literacy. NCSALL staff members have been able to introduce many attendees to NCSALL's research and publications, answer questions, and make personal connections with those already familiar with NCSALL. NCSALL's conference participation also has extended to the state and local level and includes conferences and workshops in most states as well as in international venues.

Practitioner Dissemination Research Network

From the beginning, NCSALL believed that effective dissemination involved more than the distribution of high-quality paper and electronic publications. For research to truly connect with practice and policy, researchers and practitioners need to work together in meaningful ways. The Practitioner Dissemination and Research Network (PDRN) was such an effort, a systematic partnership between practitioners and researchers created to strengthen NCSALL research and make the results of university-based research available and useful to the field. The PDRN asked practitioners to provide feedback to researchers and test research in the classroom, encouraged practitioners to research topics related to NCSALL and share their experiences with colleagues, connected practitioner researchers and NCSALL researchers studying similar issues, and helped practitioners disseminate information about NCSALL research processes and results.

The heart of the PDRN was the Practitioner Leaders, adult basic education teachers who served as liaisons between practitioners and NCSALL. Located in each of 14 participating states, Practitioner Leaders shared information about NCSALL-sponsored studies at conferences and through state newsletters. They helped NCSALL researchers identify adult basic education programs willing to be research sites. Practitioner Leaders also conducted their own classroom or program research on NCSALL-related research topics, sometimes assisted by other practitioners in their states who conducted research on topics similar to those NCSALL investigated. Organizing professional development activities for practitioners in their state—such as study circles designed to provide information about NCSALL research findings that could then be used in classrooms and programs—was another important part of their work.

The PDRN project produced four major lessons:

1. Connecting practitioners and researchers has a positive impact on practitioners and practice. Involvement with research expands practitioners' views of the field of adult literacy and their role as professionals in it, increasing the likelihood that they will become regular and critical consumers of research.

2. Connecting researchers and practitioners has a positive impact on research. Practitioner involvement in research design, implementation, and analysis improves the quality of the research and its applicability to practitioners.

3. Effectively connecting researchers and practitioners requires specific strategies, such as providing research-based professional development activities for practitioners, involving practitioners in conducting their own research, and providing opportunities for researchers and practitioners to work together on actual research.

4. Effectively connecting researchers and practitioners requires specific supports at the practitioner and state levels, such as providing practitioners with training and support—adding time into practitioners' jobs and providing them with paid staff development release time—and involving states in planning and implementing research dissemination activities aligned with their goals and systems.

These lessons have the following implications for the initiation of any national effort to connect research and practice in the field of adult education and literacy:

- Connecting practice and research means designing and offering professional development activities, such as study circles and practitioner research, that help practitioners understand and use research.

- Efforts must be made to connect research and policy through activities, such as policy problem-solving seminars, that help policymakers understand and use research.

- Practitioners must be involved both as leaders and participants, and sufficient funding must be allocated to support this involvement. Researchers and practitioners must serve as co-researchers and investigators, and researchers need structures to interact and work directly with practitioners in sustained, meaningful ways.

- The strategies and supports to connect practitioners and researchers need to be put into place at the state level. To accomplish this, states need technical assistance to determine how to integrate research, practice, and policy efforts into their goals and plans, as well as how to use research in their professional development and policy-setting activities.

- Practitioners and policymakers in states need clear and transparent ways to provide input to national-level research agenda setting, funding, and design efforts.

Connecting Practice, Policy, and Research

On the basis of the PDRN experience, NCSALL believes the field of adult education and literacy needs a national system to connect research, policy, and practice. This system should operate in every state, involve all adult education research and researchers, and include both professional development and policy-setting activities within each state. Such a system can aid in using research findings in practice and designing research studies based on practice, thereby maximizing the investment of research funding in the field.

In its second five years, NCSALL will join with such national partners as the National Institute for Literacy and such state partners as New Mexico, Louisiana, and Delaware to design and test the components of this system. The Connecting

Practice, Policy, and Research (CPPR) initiative will establish processes that connect practitioners and policymakers with research in ways that support their understanding and use of research, involve them in research, and allow them to participate in the decisions that fund and design research. Under the CPPR initiative, NCSALL will:

- Participate in discussions about a national dissemination system making the latest research findings accessible to practitioners and policymakers
- Create new materials and activities that "translate" useful information about research findings for the specific needs of practitioners and policymakers
- Work closely with a group of pilot states to determine how best to integrate these materials and activities into state professional development and policy-setting systems

Research findings will be translated into professional development activities (such as study circles, practitioner research, and workshops) and policy problem-solving seminars that can be conducted through each state's professional development system. In this way, practitioners will be able to take part in professional development activities, and policymakers will be able to engage in discussions that introduce them to findings from current educational research. Together, they can analyze and plan how to apply these findings in their classrooms and programs. The CPPR initiative will help states offer research-based materials, professional development, and policy-setting activities, ensuring that practice and policy improvements are based on solid research. Other processes will ensure that practitioners' and policymakers' problems and concerns are considered in designing and funding adult literacy-related research.

Throughout the CPPR work over the next five years, NCSALL will document and evaluate how these processes, materials, and activities work in the pilot states. By 2006, these efforts will give the field important information about the processes and components of a national system connecting practice, policy, and research. Such a system will ensure that practitioners have access to clear, useful information about research findings and that they place greater importance on the relevance of research, using it in their classroom practice to improve student results. Policymakers will be familiar with the latest research findings related to adult education and literacy and will be able to use research when making and implementing policy decisions. They will be aware of what is in the research pipeline for the next few years, enabling them to plan and budget for the use of upcoming research. Finally, researchers will better understand the research interests

and needs of practitioners, as well as how policymakers use research in their budgeting and planning processes. Researchers will also be better educated about how their research can reach practitioners and policymakers in the most relevant, useful ways.

LESSONS FROM RESEARCH 1996–2001

Since its creation in 1996, the National Center for the Study of Adult Learning and Literacy (NCSALL) has conducted and disseminated research to strengthen practice in ABE, ESOL, ASE programs. This experience, influenced by existing research in the field and informed by practice, has led to new insights about adult education. NCSALL's research findings can help practitioners and policymakers better understand adult education and literacy and its outcomes, as well as how to provide effective instruction, support adult learners' persistence in programs, provide a range of services, and incorporate research in practice. This knowledge also shapes NCSALL's research and dissemination efforts over the next five years.

Literacy and its Outcomes

Lesson: The meaning of literacy has changed

In the 21st century, the terms "literate" and "illiterate" are no longer useful in the United States. Adults need a variety of well developed skills and educational credentials to be successful in their roles as workers, family members, citizens, and lifelong learners.

Research reviewed in NCSALL's *Building a Level Playing Field* (Comings, Reder, & Sum, 2001) suggests that these standards should be:

- English language skills equivalent to SPL 8 on the BEST test[1]
- Core basic skills of reading and math equivalent to NALS Level 3[2]
- The broader set of basic skills outlined by the EFF framework at levels that have yet to be determined[3]

[1] The Basic English Skills Test (BEST) measures English skills on a scale of 10 student performance levels (SPL).

[2] The National Adult Literacy Survey measured literacy and math skills on a five-level scale. Adults who score in NALS Level 3 can find relevant information in complicated and lengthy text and solve problems by locating several numbers in text and determining which operation to use.

[3] The Equipped for the Future (EFF) initiative is developing standards and measurement tools for a broad range of basic skills and knowledge linked to the adult roles of worker, parent, student, and lifelong learner.

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- A high school credential or GED[4]
- Preparation for success in postsecondary education and training

Adults who meet these standards are prepared to do well in their roles as workers, parents, and citizens and to successfully pursue further education and training.

The research that supports this set of standards draws from surveys, such as the National Adult Literacy Survey (NALS) of 1992, that compare adults who meet these standards with those who do not. These data do not show the impact of participating in adult education programs but suggest that if participation leads to the recommended level of skills and credentials, participants will benefit.

Recommendation

The Adult Education and Literacy System[5] (AELS) should set its standards high enough to support success in adults' roles as workers, family members, citizens, and lifelong learners.

Lesson: The AELS serves only a fraction of the 42 percent of the working-age population that needs its services.

According to the Office of Vocational and Adult Education (OVAE), the AELS is serving around three million adults each year, and the National Institute for Literacy (NIFL) estimates that the total funding from federal and state sources is less than $1.3 billion a year ($433 per student).

Many adults are not likely candidates for the AELS, including those who believe they are too old to benefit from further study and others who are young high school dropouts not interested in continuing their education immediately. To estimate the population that might be willing to attend programs, *Building a Level Playing Field* (Comings et al., 2001) looked at the adult population between the ages of 18 and 64 and used data from the 1990 census and the 1992 NALS. This analysis estimated the total population that might benefit from services at 64 million adults, each of whom falls into one of three categories:

[4] The General Educational Development tests provide a high school–equivalence credential.
[5] The Adult Education and Literacy System (AELS) includes all federal and state programs and services funded under the Workforce Investment Act (WIA).

- 6.5 million adults (5 percent of the adult population) who do not speak English well

- 23.2 million adults (17 percent of the adult population) who speak English well but do not have a high school credential or GED

- 34.3 million adults (20 percent of the adult population) who speak English well and have a high school credential or GED but have NALS Level 1 or 2 skills (categorized as ranging from having almost no skill in reading and math, to having difficulty locating information in longer, moderately complicated text, to being able to locate information in moderately complicated text and solve simple math problems when numbers and operations are part of a piece of text)

Together, these three groups account for 42 percent of the working-age population (18–64 years of age). Data from the 2000 Census and the 2002 National Assessment of Adult Literacy (NAAL) will provide a current estimate of this population in 2004. However, initial Census data suggest that the population of adults who do not speak English well or who speak English but who do not have a high school diploma or GED has grown.

Recommendation

Additional funding can help expand services, and changes in the way services are provided may be key to meeting this important national priority.

Lesson: Further research that employs experimental or quasi-experimental designs could demonstrate the impact of participation in AELS programs.

To consider the impact of participation in AELS programs, NCSALL's Assessment of Outcomes Study (Beder, 1999) reviewed all of the AELS program impact studies and analyzed data from a longitudinal study of program participants (Bingman, Ebert, & Smith, 1999). Unfortunately, the researchers found methodological flaws in all the impact studies they reviewed.

Only well-designed experimental research can conclusively prove that improving skills and acquiring credentials in adult education programs lead to the impact identified in the NALS and other survey data, but that research has not been done. Furthermore, an experiment that would prove the impact of helping adults meet 21st century standards for literacy would be logistically challenging, expensive, and ethically difficult to implement.

However, NCSALL's GED Impact Study was able to use data from the Social Security Administration and the GED Testing Service to explore "natural experiments" (randomly assigning people to passing and failing groups) because states have different passing scores for the GED (Tyler, Murnane, & Willet, 2000). In addition, data from longitudinal studies provided "quasi-experimental" evidence that matched groups of adults with very similar characteristics, some with and some without a GED (Tyler, Murnane, & Willet, 2002). Findings from these studies suggest that some groups of high school dropouts benefit economically from passing the GED and that acquiring a GED provides a better economic return for those who have low literacy skills.

Both NCSALL's GED Impact Study and Assessment of Outcomes Study suggest that further research that employs experimental or quasi-experimental designs would identify a positive impact when adults are helped to achieve the skills and credentials needed to be successful in their many roles. However, that impact might not show itself for several years after adults have participated in a program. In addition, program participation might have a small impact on several different aspects of life (income, reading to children, voting, and health, for example) rather than a large impact on one aspect, such as income. These two limitations make experimental research focused on impact difficult.

Recommendation

Before undertaking an experimental study that gauges the impact of participation in AELS programs, random assignment experiments should first test which approaches to instruction and program services help different populations of adults meet 21st century literacy standards.

Important Differences between the K–12 and Adult Education and Literacy Systems

Lesson: To improve instruction, adult education practitioners may learn from research-based practice in the K–12 system, but they should adapt their instruction to reflect four important differences of persistence, content, student profile, and participation.

The body of research on adult education is small compared to that on K–12 schooling. Adult educators, therefore, look to K–12 research for guidance on decisions about both the process and content of instruction. This guidance is more useful if it is tempered by an understanding of the fundamental differences between adult education and the system of child schooling. NCSALL research has identified

four essential differences between adult education and the child schooling system that are important to consider when applying K–12 research findings to adults.

Difference 1: Persistence

Adults choose to participate in educational programs, whereas children participate because of legal mandates and strong social and cultural forces that identify schooling as the proper work of childhood. Adults must make an active decision to participate in each class session and often must overcome significant barriers to attend classes.

Lesson: Improving persistence rates is critical for any effort to increase program impact.

Teachers in adult education programs hope their adult students will persist in learning until they reach their educational goals. However, the National Evaluation of Adult Education Programs (NEAEP) found that although 44 percent of participants left their programs satisfied, only 5 percent left having achieved their goals (Young, Fleischman, Fitzgerald, & Morgan, 1994).

Several studies have identified approximately 100 hours of instruction as the minimum adults need to achieve an increase of one grade-level equivalent on a standardized test of reading comprehension (Sticht, 1982; Dakenwald 1986; Perin & Greenberg, 1993). NCSALL researchers analyzed the adult education data in Massachusetts for the *New Skills for a New Economy* (Comings, Sum, & Uvin, 2001) report and found that after 150 hours of instruction, the probability of making a one grade level or greater increase was 75 percent. Yet the average adult student spends fewer than 70 hours in a program in a 12-month period (U.S. Department of Education, 2002)—less than one tenth of the time that a K–12 student spends in school during a year. These figures do not include adults who drop out before they complete 12 hours of instruction, which would lower the average significantly. Most adults are leaving programs before completing the 100 hours needed to make measurable progress, and they are reporting that they have not achieved their goals.

Although some adults who enter an adult education program may have specific goals that require only a few hours of instruction, most adult students have instructional needs that require a long-term effort. Program participation of even 150 hours, therefore, is probably inadequate for most adult students to reach their learning goals.

Recommendation

Adults must be helped to persist in their studies for more hours in a year and to continue to be engaged for several years. Adult education programs should focus part of their resources on helping students persist longer in their learning. This will only happen if the policies governing funding support the kinds of activities that lead to greater persistence. In fact, persistence rates should be an important outcome measure for accountability systems.

Lesson: There are four supports to persistence in adult education programs: managing positive or negative forces that help or hinder persistence, building self-efficacy, establishing clear goals, and making progress toward goals.

NCSALL's Adult Student Persistence Study (Comings et al., 1999) summarized previous reviews of research on persistence, interviewed and followed participants in adult education programs, and reviewed program practice in support of persistence. This study has identified four supports to persistence that serve the purpose of compulsory attendance in K–12 schooling.

Support 1: Managing positive or negative forces that help or hinder persistence in programs

The research team chose to employ sociologist Kurt Lewin's (1999) force-field analysis theory, which places an individual in a field of positive, supporting forces and negative, inhibiting forces. Understanding the forces, identifying the strongest, and deciding which are most amenable to manipulation provide an indication of how to help someone move in a desired direction—in this case, to reach an educational goal.

Recommendation

Adult education programs should help students develop an understanding of the negative and positive forces that affect their persistence. Building on that understanding, each student can make plans to manage these forces so that persistence is more likely. Adult students should first identify all the forces acting on them. They should then decide which of these forces are strong enough to significantly affect their persistence. Finally, each student should determine which positive forces can be strengthened and which negative forces can be weakened.

Support 2: Building self-efficacy around learning

Although the term "self-confidence" is more common in adult education literature, it is a general term that describes a global feeling of being able to accomplish most tasks. Self-efficacy focuses on a specific task and describes the feeling of being able to accomplish that task—in this case, successful learning in adult education programs. NCSALL's Adult Student Persistence Study drew from the theory of social scientist Albert Bandura (1986), which can act as a powerful framework within which programs can help students learn that they can succeed in an adult education program.

Recommendation

In particular, adult education programs should provide the following kinds of experiences to help participants build self-efficacy:

Mastery experiences allow an adult to be successful in learning and to have evidence of that success. Instruction should not be designed to produce only easy and constant success, however. Adults also need experience in overcoming failure and eventually achieving success through a sustained effort, and instruction should help them develop this insight. Instruction should provide opportunities for success early in program participation to give students the opportunity to experience success, but teachers should also help students deal with and learn from failure.

Vicarious experiences are provided by social models. Adult learners should be exposed to adults who are like themselves and have succeeded in an adult education program. Through both the knowledge they share directly and the indirect teaching of their behavior, these role models help adult students acquire the skills needed to manage the many demands of learning. Programs should involve successful current or former students as speakers during intake and orientation activities and recruit former participants as counselors, teachers, and directors.

Social persuasion reinforces self-efficacy through support from teachers, staff, counselors, fellow students, family, and friends. Adult students—especially those who need to overcome negative experiences with learning during K–12 schooling—need verbal assurances. Adult education practitioners should assure students that they can be successful and encourage students' family members to provide positive reinforcement as well. Teachers should develop a culture of support among their students.

Opportunities to address physiological and emotional states help students cope with the tension, stress, and other negative emotions that can both result from and lead to poor self-efficacy. Adult education programs should help their adult students perceive and interpret their emotional states in ways that do not affect their self-efficacy. Adult education practitioners can use life histories and dialogue journals to help students identify the physical and emotional issues that can affect their learning. Simply acknowledging that these feelings can affect learning can help diminish their negative effects on students.

Support 3: Establishing clear student goals

Goal-setting begins even before an adult enters a program. A potential student experiences an event that causes him or her to begin thinking about entering an adult education program. These events provide potential adult students with goals they hope to accomplish by entering a program.

Recommendation

Program staff must help potential adult students define their goals and understand the many instructional objectives to accomplish en route to achieving these goals. Teachers should include a discussion of goals not just at the beginning but periodically throughout instruction because goals may change. When possible, teachers should use student goals as the context for instruction and for assessment of progress.

Support 4: Progressing toward student goals

As goals are important supports to persistence, adult students must make progress toward their goals. Program services, therefore, must be of sufficient quality that students make progress.

Recommendation

Programs should be funded in a way that allows them to meet standards for high-quality service and have assessment procedures that allow students to measure their progress. Most programs measure student progress as part of the accountability system imposed by their funding agency, but helping students measure their own progress may require tools and methods inappropriate for accountability systems, which rely on standardized tests that are easy to use and produce quantitative results. Students and teachers need tools that measure small changes and provide information that can help improve practice. Portfolio and authentic assessment approaches might be more useful in helping students measure progress, but their use requires more professional development for teachers.

Difference 2: Content

Academic learning occupies only a small part of most adults' lives and is usually a temporary activity. Unlike children, adults organize their lives around work, family, and community. When the content of instruction focuses on using basic skills to perform tasks or discuss issues related to these life roles, it is authentic rather than academic content. Authentic content in adult education programs provides the motivation to learn and the opportunity to practice skills that the transition from one grade to another provides in K–12 schooling.

Lesson: Authentic activities and texts help change adult learners' literacy practices.

NCSALL's Literacy Practices of Adult Learners Study (Purcell-Gates, Degener, Jacobson, & Soler, 2001) considered whether authentic content in adult literacy programs had an impact on learning. The study examined how adults in literacy programs use literacy skills in their everyday lives and the type of instruction that best increased the degree of everyday literacy activity. More specifically, this study focused on whether the degree of authenticity of the texts and activities employed in the classroom positively changes literacy practices outside the program. Students learning to read with materials relevant to their lives and focused on their current interests expanded their amount of reading and the types of materials they read outside class. This was true after controlling for the other factors that also showed independent significant effects on literacy practice change.

Adult education theory supports this finding. Most of this theory builds on the work of Malcolm Knowles, who proposed five assumptions about adult learners (Merriam & Caffarella, 1999, p. 272):

- As a person matures, his or her self-concept moves from a dependent personality toward a self-directed human being.
- An adult accumulates a growing reservoir of experience, which is a rich resource for learning.
- The readiness of an adult to learn is closely related to the developmental tasks of his or her social role.
- There is a change in time perspective as people mature—from future application of knowledge to immediacy of application; therefore, an adult is more problem-centered than subject-centered in learning.
- Adults are motivated to learn by internal rather than external factors.

These theoretical assumptions argue for authentic curriculum content.

Recommendation

Focusing adult education programs on authentic content that is interesting and important to adult students can support their motivation and achievement, particularly related to increased reading skills. Instruction focused on content that interests adult students will build skills they can apply to tasks in their roles as parents, workers, and citizens. Therefore, the needs and interests of program participants should dictate the content of instruction.

Increasing parents' reading enhances adult education programs' impact on the children of participants in family literacy programs. As a report of the National Research Council, *Preventing Reading Difficulties in Young Children* (Snow, Burns, & Griffin, 1998) noted, success in learning to read in school is related to the preparation and support parents provide before children enter school and while students are in the first three grades.

Difference 3: Student Profile

Adults who have the same achievement score on a standardized test might have very different skills, knowledge, and abilities, whereas most children in the same grade and with the same test score have similar skills, knowledge, and abilities. Identifying student profiles in adult education programs produces the instructional groups that K–12 schooling does on the basis of age and test scores.

Lesson: An adult's profile of skills, knowledge, and abilities can provide the information needed to design effective curricula and instruction.

Adults come to adult education programs with a set of skills, knowledge, and abilities developed over their lifetime. When two adults with the same background and similar scores on a standardized test enter a class, one may benefit from a particular teacher's approach to instruction, and the other may not. This performance difference sometimes can be attributed to differences in their profile of skills, knowledge, and abilities. If teachers are not aware of these student profiles, they may provide instruction effective for some but not for others.

NCSALL's Adult Reading Components Study, Adult Development Study, and Adult Multiple Intelligences Study support this perspective. Students may appear to have similar strengths and weaknesses when they arrive at a program. Assessment that provides teachers with a larger range of knowledge about students' skills, knowledge, and abilities can lead to instruction that is more effective. These findings have implications for professional development, as teachers need to be able

to build student profiles, teach students who fit a particular profile, and manage classes in which students might fit into several different profiles.

Two adults with the same reading comprehension score may need to improve other reading component skills to increase their comprehension test score.

Most programs assess reading ability with a reading comprehension test, but this test will do little to inform a teacher or student about the best content or process of learning. Comprehension is only one of several reading component skills, which also include print skills (phonics, which is the ability to pronounce the sounds that correspond to written letters and syllables, and decoding, which is the ability to read words), oral vocabulary, background knowledge, and fluency (the speed and accuracy of reading).

NCSALL's Adult Reading Components Study (Strucker & Davidson, 2002) administered a series of reading component tests to 600 ABE and 400 ESOL students, and these test scores were used to make up their individual reading profiles. Overall, the data indicated that most of the native English speakers had scores that would place them in special education if they were children. In fact, many of these adults had been in special education or received other forms of extra help when they were in school. The ESOL students who spoke Spanish were also tested in their native language, and 95 percent had adequate print skills in Spanish.

Placing the ABE and ESOL individual profiles in a database and using cluster analysis (a procedure that forms groups of students with similar profiles in reading strengths and weaknesses), the researchers identified 10 clusters:

1. Strong GED students who have strong skills in all reading components. These grade equivalent (GE) 11–12 students can usually pass the GED after a few months of test preparation in writing and math.

2. Strong pre-GED students with needs in vocabulary and background knowledge. These GE 8–10 students can get through the GED tests with their present skills but should be encouraged to spend time to improve vocabulary and background knowledge if they plan to go on to postsecondary education.

3. Pre-GED students who have needs in vocabulary, background knowledge, and print skills. For this GE 8–10 group, concerns regarding vocabulary and background knowledge are similar to those about the previous cluster. In addition, their weak decoding skills and slow reading

rate may make finishing the GED tests within the time limit difficult. They need help to increase their reading rate.

4. Intermediate students with adequate print skills but very weak meaning skills. These GE 6 students need instruction focused on vocabulary, background knowledge, and comprehension strategies.

5. Intermediate students with adequate print skills but very weak meaning skills. These GE 6–7 students need instruction to improve their print skills and increase their reading rate; like the previous group, they also need to improve their vocabulary and background knowledge.

6. Low intermediate students with GE 4–5 profiles in all components. These students need instruction in both print and meaning skills, but they do not show signs of severe decoding or reading rate problems.

7. Low intermediate students with severe decoding and reading rate needs. For these GE 4–5, the focus should first be their GE 3 decoding and very slow reading rate, then their vocabulary and background knowledge.

8. Beginning readers at GE 2 or below. These students need instruction in basic phonics and word recognition.

9. Beginning readers at GE 2 or below with severe rate impairment. These students are similar to the previous group but also show signs of underlying reading rate impairment.

10. "Should be in ESOL" students. Although 90 percent of these readers are not native speakers of English, they have become fluent in basic oral English through long-term U.S. residency. However, their English reading is limited by their GE 2 English vocabulary. They should be placed with teachers who are familiar with the vocabulary and written grammar needs of ESOL students.

Recommendation

To address the reading problems of adult students effectively, practitioners need to know the reading strengths and weaknesses of their adult students. As teachers do not have the resources to provide different instruction to each student, the profiles developed by the Adult Reading Components Study provide a way to group students.

Individuals' ways of knowing—or ways of making meaning of their experience of the world—have implications for instruction.

NCSALL's Adult Development Study (Kegan, Broderick, Drago-Severson, Helsing, Popp, & Portnow, 2001) was based on the hypothesis that adults have different beliefs that amount to an interpretive lens through which they make meaning. This lens filters the way a person takes in, organizes, understands, and analyzes his or her experiences. The study looked beyond the acquisition of literacy, language, and increased content knowledge to explore the ways in which adults make meaning of their experience of the world, their "way of knowing." Adults' gradual evolution from a simpler way of knowing depends on available supports, appropriate developmental challenges, and encouragement of growth.

This study built on Robert Kegan's theory of adult development, which identifies three qualitatively distinct ways of knowing most prevalent in adulthood: Instrumental, Socializing, and Self-Authoring ways of knowing. People with an Instrumental way of knowing understand and organize their experience of self, others, and the world by concrete attributes, events, and sequences; observable actions and behaviors; and their own vantage point, interests, and preferences. People with a Socializing way of knowing have a more abstract and internal orientation to the world. They experience other people as not merely resources or supplies to the self but sources of external validation, orientation, or authority. Finally, people with a Self-Authoring way of knowing can take responsibility for and ownership of their internal authority and develop their own belief system. They can not only identify abstract values, ideals, and longer-term purposes, but also prioritize and integrate competing values, and develop a personal ideology or overall belief system.

Familiarity with the different meaning making systems can help explain how the same curriculum, classroom activity, or teaching behavior excites some students yet leaves others feeling lost or deserted. The study also found that adults with all three ways of knowing could learn together in group processes. In fact, working together as a group helped students make developmental gains. However, the ways students participate in groups may reflect their particular way of knowing.

In addition to increasing knowledge of meaning making systems, this study expands understanding of possible outcomes of adult education programs. Qualitative transformation in an adult's way of knowing took place in students observed for 12 to 18 months, and even greater transformation may occur over longer periods.

Recommendation

The Adult Development Study suggests that adult educators should view differences in developmental ways of knowing as important to their work and should develop a range of instructional designs that encompass the range of adult learners' ways of knowing. Students with an Instrumental way of knowing might prefer instruction that puts the teacher at the center, has measurable increments of success, and follows set procedures. Students with a Socializing way of knowing might prefer group learning, peer teaching, and personalized forms of assessment. Those with a Self-Authoring way of knowing might prefer a self-directed approach to learning in which the teacher is one of several sources of knowledge.

Multiple Intelligences (MI) theory can inform good practice and expand the capacity of teachers to bring out the best in their students.

Teachers are often impressed by their students' nonacademic abilities in such areas as music, art, conversation, auto repair, or counseling and wonder how this potential can be used to enhance learning in adult education programs. Howard Gardner's theory of Multiple Intelligences (MI), which defines intelligence as the ability to solve problems or create products valued in one or more cultures or communities, provides another way to look at adult students' strengths and abilities. Currently, eight forms of intelligence have been recognized: linguistic, logical-mathematical, spatial-visual, bodily-kinesthetic, musical, interpersonal, intrapersonal, and naturalist.

In NCSALL's Adult Multiple Intelligences (AMI) Study, a group of adult education teachers explored the application of MI theory to their practice. MI theory served as a tool for developing the adult students' knowledge about their own learning. The theory gave the students a positive framework within which to discuss and reflect on their past successes and failures at learning. This self-reflection was an important, preliminary step to identifying individual learning strategies. The teachers found themselves relinquishing some control over instruction by giving their students a choice of learning and assessment activities and respecting their individual ways of learning and knowing. The teachers perceived a noticeable shift in the teacher-to-student power relationship in the course of the AMI study that they attributed to their MI-based practices. Over time, students began taking more initiative and control over the content or direction of the activities.

Recommendation

Adult education practitioners can use MI theory as a framework to explore the abilities of their students in ways that can inform instruction. This might lead to instruction that uses the student's strongest intelligence to learn academic content—teaching reading with the lyrics of songs, for example. An exploration of MI theory might lead a teacher to offer several different ways to learn the same thing, each employing a different intelligence. The most important contribution, however, might be a change in instruction that helps students start learning with their strengths rather than their weaknesses.

MI theory, which emphasizes the positive ways that people acquire knowledge and interact with the world, may be especially valuable to teachers working with adult students who have experienced repeated difficulties learning in academic environments, which primarily value linguistic intelligence. Adults have years of experience developing their strongest types of intelligence, and this strength may form a foundation for success in academic subjects.

Difference 4: Participation

Adults use episodes of program participation and self-study to build their skills and knowledge to meet goals important to them, whereas children engage in continuous participation to meet the goals set by schools. Despite this difference, most adult education programs are organized like schools, with classes that meet at specific times and in specific places.

Although teachers encourage further learning and practice outside the classroom, program resources are focused on time in class. For most programs, participation in services is equivalent to time in class. The high dropout rate and low persistence rate of students in adult education programs are an indication that attending classes on a set schedule and at a specific place is difficult for many adults.

Lesson: The AELS needs to broaden its definition of participation to include self-study.

Two NCSALL studies have found that self-study may be an important part of an adult's educational process. The Adult Student Persistence Study (Comings et al., 1999) found that adults who had been involved in previous efforts at basic skills education, self-study, or vocational skill training were more likely to persist than those who had not. This relationship was particularly strong for adults who had undertaken self-study. The Longitudinal Study of Adult Learners (Reder et al., 2002) has been

looking at how adults improve literacy skills by following nearly 1,000 adults, all high school dropouts. This study has found that 34 percent of those who had never been in an adult education program had pursued self-study to improve basic skills or prepare for the GED. Of those who had been in programs, 46 percent had been involved in similar self-study. Of the group of dropouts who acquired a GED during the first two years of the research, 74 percent had been involved in self-study.

The NCSALL finding about self-study is consistent with the recognized need to change how participation is viewed. Wikelund, Reder, and Hart-Landsberg (1992) called for broadening the definition of participation to acknowledge that adults engage in education in many ways other than formal classes. They also explored how research and theory have failed to provide programs with useful models for defining participation, concluding that research and theory—as well as practice—should break out of the framework of K–12 schooling. A new definition of participation would acknowledge that adult learning—even improvements in literacy skills—could take place outside formal programs. With this new definition, programs would attempt to support learning at times when adults are not able to attend classes.

Recommendation

Adult education programs should help students plan how to use both formal program participation and self-study to build a pattern of learning. This would allow adult learners to move in and out of adult education program participation without the stigma or loss of learning that dropping out entails. Rather than dropping out, adults would pursue their learning through self-study and then might return to their program or join another one. A plan that incorporates both formal education and self-study could offer the opportunity for continuous learning in adult education programs that the K–12 system offers through schools with set places and schedules.

Incorporating Research in Adult Education Practice

Lesson: The foundation that makes research-based practice possible is not in place.

NCSALL's research offers guidance on how to provide instruction that can be effective with adult students in ABE, ESOL, and ASE programs; unfortunately, most programs lack the resources needed to put this advice into practice. Well-trained teachers are essential to put research into practice. However, NCSALL's Staff Development Study found that most teachers are not compensated and supported in a way that allows them to make effective use of the professional development they receive.

Recommendation

The AELS should serve fewer students with better trained and supported teachers who can commit to a career in adult education programs because they have the pay and benefits that support that commitment. Teachers need access to high-quality professional development programs and to supports, such as paid release time, that help them participate in this training for as many hours as possible. Teachers also need professional development that lets them learn about research and determine how to use it in classroom programs. These teachers should work in programs that have the print and electronic resources they need to provide good instruction. All of this is the foundation for making research-based practice possible.

Lesson: Imposed models are rarely put into practice.

Two approaches to professional development are possible. The first approach would use research findings to design specific models of instruction that would then be promoted for use by teachers. The other approach would train teachers to use research to improve their teaching. NCSALL's Classroom Dynamics Study found that imposed models are rarely put into practice, even when teachers think they are doing so. In addition, the students in adult education programs are a diverse group with many different instructional needs. Employing a few specific models of instruction would probably not work for most adult education classes.

Recommendation

Professional development should train teachers, program directors, and policymakers how to use research to build effective curricula and instruction.

Furthermore, the AELS needs a new vision based on high-quality instruction within and outside programs. This vision would support research-based practice within good programs that follow the existing classroom-based model. Research should also explore new models to serve populations that do not appear to participate in or benefit from adult education services and to make participation easier and more convenient for adults who have work and family responsibilities.

State and federal policy frameworks will have to change to support this vision for the AELS. Those policies should be informed by much better information than is now available. Research can play a critical role in guiding policy for a new vision for the AELS by providing more information about the potential adult learner population, the programs that serve them, and the impact program participation has on adult learners' lives.

NCSALL'S SECOND FIVE YEARS: 2001–2006

Over its first five years, NCSALL built a foundation for strengthening practice through its leadership, research, and dissemination initiatives. Over the next five years, NCSALL will build on that foundation by focusing its efforts on:

- The Connecting Practice, Policy, and Research (CPPR) initiative
- A network of labsites
- Individual research projects
- Leadership activities

Through the CPPR initiative, NCSALL will help establish a permanent process of connecting policymakers and practitioners to research in ways that support their understanding and use of research, involve them directly in research, and allow them to participate in the decisions that fund and design research. This process will be a collaborative effort drawing on the strengths of many institutions. NCSALL will contribute its strengths in conducting research, developing print and electronic materials, and making the connection between research and practice work.

To accomplish this goal, NCSALL will continue to encourage and improve links between research and the practitioners and policymakers it serves. NCSALL will continue to provide timely and valuable information to its key audiences—practitioners, policymakers, and researchers—through its Web site; such publications as *Focus on Basics*, *The Annual Review of Adult Learning and Literacy*, NCSALL Reports, and NCSALL Occasional Papers; and its teaching and training materials. NCSALL may also add new types of materials, such as *Focus on Policy*, to this list. NCSALL will also continue to experiment with ways to connect research, policy, and practice through cooperative projects with individual states and by supporting efforts of the National Adult Education Professional Development Consortium and the National Institute for Literacy.

NCSALL's two labsites will provide venues for research and provide information that policymakers and practitioners need to improve program services. Through the labsites, NCSALL seeks to establish a permanent network of research institutions offering opportunities for both high-quality research and practitioner professional development. Some of these labsites might not be funded through NCSALL, but NCSALL will provide technical support and welcome them as full

partners in its network. Over the next five years, NCSALL labsites will pursue their established research agendas as well as new research.

NCSALL is completing several research studies begun in its first five years. The Adult Student Persistence Study and the Health and Adult Learning and Literacy Study will complete their investigative phases and prepare interventions that will be tested either in the labsites or separate projects. NCSALL's GED studies will continue to provide a more comprehensive understanding of the impact of this important program. The Adult Reading Components Study will continue to analyze its data set and promote analysis by other researchers. The Longitudinal Study of Adult Learners will collect data twice during the next five years and continue to both analyze its growing data set and promote analysis by other researchers. The Assessment of Outcomes Study will test approaches to assessment, which grew out of the ARCS project, and produce a large new data set on NALS Level 1 and Level 2 adults.

NCSALL will also establish new projects addressing new questions of policy or practice. NCSALL and OERI will work collaboratively to identify these new studies, which will draw on uncommitted funds in the NCSALL budget.

NCSALL will provide leadership in increasing and deepening understanding and use of research at all levels of the AELS and in expanding resources available for research relevant to the field. NCSALL scholars will present their research at meetings and conferences around the country. Some of these presentations will focus on specific research projects and others on the use of research to improve policy and practice. NCSALL scholars will continue to participate in national boards and advisory committees to bring the research perspective to these deliberations. NCSALL will also build collaborations with other research institutions to ensure that the field's limited research funds are used to expand knowledge and to encourage new sources of research funding.

Over the next five years, NCSALL will remain true to the goal articulated in its original proposal: improving the quality of practice in educational programs that serve adult learners. Its measurement of success remains the same as well: Practitioners can cite ways that NCSALL has helped them to improve practice.

REFERENCES

Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice-Hall.

Beder, H. (1999). *The outcomes and impacts of adult literacy education in the United States*. Cambridge, MA: National Center for the Study of Adult Learning and Literacy.

Bingman, B., Ebert, O., & Smith, M. (1999). *Changes in learners' lives one year after enrollment in literacy programs: An analysis from the longitudinal study of adult literacy participants in Tennessee*. Cambridge, MA: National Center for the Study of Adult Learning and Literacy.

Comings, J., Parrella, A., & Soricone, L. (1999). *Persistence among adult basic education students in pre-GED classes*. Cambridge, MA: National Center for the Study of Adult Learning and Literacy.

Comings, J., Reder, S., & Sum, A. (2001). *Building a level playing field*. Cambridge, MA: National Center for the Study of Adult Learning and Literacy.

Darkenwald, G. (1986). *Adult literacy education: A review of the research and priorities for future inquiry*. New York: Literacy Assistance Center.

Kegan, R. (1982). *The evolving self: Problems and process in human development*. Cambridge, MA: Harvard University Press.

Kegan, R. (1994). *In over our heads: The mental demands of modern life*. Cambridge, MA: Harvard University Press.

Kegan, R., Broderick, M., Drago-Severson, E., Helsing, D., Popp, N., Portnow, K., & Associates. (2001). *Toward a new pluralism in ABE/ESOL classrooms: Teaching to multiple "cultures of mind."* Cambridge, MA: National Center for the Study of Adult Learning and Literacy.

Lewin, K. (1999). *The complete social scientist: A Kurt Lewin reader*. (Martin Gold, Ed.). Washington, DC: American Psychological Association.

Merriam, S., & Gaffarella, R. (1999). *Learning in adulthood: A comprehensive guide*. San Francisco: Jossey-Bass.

Perin, D., & Greenberg, D. (1993). Relationship between literacy gains and length of stay in a basic education program for health care workers. *Adult Basic Education, 3*(3).

Purcell-Gates, V., Degener, S., Jacobson, E. & Soler, M. (2001). *Affecting change in the literacy practice of adult learners: Impact of two dimensions of instruction*. Cambridge, MA: National Center for the Study of Adult Learning and Literacy.

Reder, S. (2002). *Findings from the longitudinal study of adult learning*. Cambridge, MA: National Center for the Study of Adult Learning and Literacy.

Snow, C., Burns, S., & Griffin, P. (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academy Press.

Strucker, J., & Davidson, R. (2002). *The adult reading components study*. Cambridge, MA: National Center for the Study of Adult Learning and Literacy.

Sticht, T. (1982). *Evaluation of the reading potential concept for marginally illiterate adults*. Alexandria, VA: Human Resources Research Organization.

Tyler, J., Murnane, R., & Willett, J. (2000). *Cognitive skills matter in the labor market, even for school dropouts*. Cambridge, MA: National Center for the Study of Adult Learning and Literacy

Tyler, J., Murnane, R. & Willett, J. (2002). *So you want a GED? Estimating the impact of the GED on the earnings of dropouts who seek the credential.* Cambridge, MA: National Center for the Study of Adult Learning and Literacy.

U.S. Department of Education. (2002). *Adult education and family literacy act report to Congress on state performance, program year 1999–2000.* Washington, DC: U.S. Government Printing Office.

Wikelund, K., Reder, S., & Hart-Landsberg, S. (1992). *Expanding theories of adult literacy participation: A literature review* (NCAL Technical Report TR 92-1). Philadelphia: National Center on Adult Literacy.

Young, M., Fleischman, H., Fitzgerald, N., & Morgan, M. (1994). *National evaluation of adult education programs: Patterns and predictors of client attendance*. Arlington, VA: Development Associates.

APPENDIX A: NCSALL PUBLICATIONS

NCSALL Reports

Reports #19a: **Toward a New Pluralism in ABE/ESOL Classrooms: Teaching to Multiple "Cultures of Mind."** ***Executive Summary***
Kegan, R., Broderick, M., Drago-Severson, E., Helsing, D., Popp, N., & Portnow, K. (2001)

Reports #19: **Toward a New Pluralism in ABE/ESOL Classrooms: Teaching to Multiple "Cultures of Mind."** ***Research Monograph*** (740 pages)
Kegan, R., Broderick, M., Drago-Severson, E., Helsing, D., Popp, N., Portnow, K., & Associates. (2001)

Reports #18: **Classroom Dynamics in Adult Literacy Education.**
Beder, H. & Medina, P. (2001)

Reports #17: **Affecting Change in the Literacy Practice of Adult Learners: Impact of Two Dimensions of Instruction.**
Purcell-Gates, V., Degener, S., Jacobson, E., & Soler, M. (2000)

Reports #16: **The Devil is in the Details: Evidence from the GED on the Role of Examination System Details in Determining Who Passes.**
Tyler, J., Murnane, R., & Willett, J. (2000)

Reports #15: **Cognitive Skills Matter in the Labor Market, Even for School Dropouts.**
Tyler, J., Murnane, R., & Willett, J. (2000)

Reports #14: **An Overview of Medical and Public Health Literature Addressing Literacy Issues: An Annotated Bibliography.**
Rudd, R., Colton, T., &, Schacht, R. (2000)

Reports #13: **"I've Come A Long Way": Learner-Identified Outcomes of Participation in Adult Literacy Programs.**
Bingman, B., & Ebert, C. (2000)

Reports #12: **Persistence Among Adult Basic Education Students in Pre-GED Classes**
Comings, J., Parrella, A., & Soricone, L. (1999)

Reports #11: **Changes in Learners' Lives One Year After Enrollment in Literacy Programs: An Analysis from the Longitudinal Study of Adult Literacy Participants in Tennessee.**
Bingman, B., Ebert, O., & Smith, M. (1999)

Reports #10: **The Impact of Welfare Reform on Adult Literacy Education: Conference Papers and Themes from Small Group Sessions.**
D'Amico, D., Levenson, A., & White, C. (1999)

Reports #9: **Findings from a National Survey of State Directors of Adult Education.**
Rudd, R., Zahner, L., & Banh, M. (1999)

Reports #8: **Adult Educators' Perceptions of Health Issues and Topics in Adult Basic Education Programs.**
Rudd, R., & Moeykens, B. (2000)

Reports #6: **The Outcomes and Impacts of Adult Literacy Education in the United States.**
Beder, H. (1999)

Reports #6A: **The Outcomes and Impacts of Adult Literacy Education in the United States—Appendix A: Abstracts of Studies Reviewed.**
Medina, P. (1999)

Reports #5: **Integrating Health and Literacy: Adult Educators' Experiences.**
Rudd, R., Zacharia, C., & Daube, K. (1998)

Reports #4: **Practitioners Speak: Contributing to a Research Agenda for Adult Basic Education.**
Bingman, B., Smith, C., & Stewart, K. (1998)

Reports #2: **Adult Literacy Program Practice: A Typology Across Dimensions of Life-Contextualized/Decontextualized and Dialogic/Monologic.**
Purcell-Gates, V., Degener, S., & Jacobson, E. (1998)

Reports #1: **Contested Ground: Performance and Accountability in Adult Education.**
Merrifield, J. (1998)

Focus on Basics

Volume 5:
Issue A (August 2001): **First Level Learners**

Volume 4:
Issue A (March 2000): **Learning from Research**
Issue B (Sept. 2000): **Mathematics Instruction**
Issue C (Dec. 2000): **Technology**
Issue D (March 2001): **Research to Practice**

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Issue A (March 1999): **Adult Multiple Intelligences**
Issue B (June 1999): **Accountability**
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Issue D (Dec. 1999): **Writing Instruction**

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NCSALL Occasional Papers

Building a Level Playing Field: The Need to Expand and Improve the National and State Adult Education and Literacy Systems
Comings, J., Reder, S., & Sum, A. (2001)

Multiple Intelligences in Practice: Teacher Research Reports from the Adult Multiple Intelligences Study.
Kallenbach, S., & Viens, J., Eds. (2001)

Outcomes of Participation in Adult Basic Education: The Importance of Learners' Perspectives.
Bingman, B., with Ebert, O., & Bell, B. (2000)

How the ARCS Was Done.
Strucker, J., with Davidson, R., & Hilferty, A. (2000)

NCSALL Interim Evaluation #2: The Prospects for Disseminating Research to a Hungry Field.
Wilson, B., & Corbett, D. (2000)

Evaluation of the Impact of Focus on Basics on its Readers.
Garner, B. (2000)

NCSALL Teaching and Training Materials

How are we Doing? An Inquiry Guide for Adult Education Programs.
Bingman, B., with Ebert, O. (2001)

Beyond the GED: Making Conscious Choices About the GED and Your Future.
Lesson Plans and Materials for the GED Classroom.
Fass, S., & Garner, B. (2000)

NCSALL Study Circle Guide: Performance Accountability in Adult Basic Education.
(2000)

The Annual Review of Adult Learning and Literacy

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Chapter One: The Year 2000 in Review
Lennox L. McLendon

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Thomas G. Sticht

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Marcia Drew Hohn

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Fran Tracy-Mumford

Chapter Two: Lessons of Preventing Reading Difficulties in Young Children for Adult Learning and Literacy
Catherine E. Snow & John Strucker

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Elisabeth Hayes

Chapter Four: Adult Literacy and Postsecondary Education Students: Overlapping Populations and Learning Trajectories
Stephen Reder

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NCSALL Research Briefs

Affecting Change in the Literacy Practice of Adult Learners: Impact of Two Dimensions of Instruction.
Purcell-Gates, V., Degener, S., Jacobson, E., & Soler, M. (November 2000)

The Devil is in the Details: Evidence from the GED on the Role of Examination System Details in Determining Who Passes.
Tyler, J., Murnane, R., & Willett, J. (April 2000)

Cognitive Skills Matter in the Labor Market, Even for School Dropouts.
Tyler, J., Murnane, R., & Willett, J. (April 2000)

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Murnane, R., Willett, J., & Tyler, J. (April 2000)

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Bingman, B., & Ebert, O. (February 2000)

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Tyler, J., Murnane R., & Willett, J. (January 2000)

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Comings, J., Parrella, A., & Soricone, L. (December 1999)

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National Center for the Study of Adult Learning and Literacy

NCSALL's Mission

The National Center for the Study of Adult Learning and Literacy (NCSALL) provides information used to improve practice in programs that offer adult basic education, English for speakers of other languages, and adult secondary education. In pursuit of this goal, NCSALL has undertaken research in four areas: learner motivation, classroom practice and the teaching/learning interaction, staff development, and assessment.

NCSALL conducts basic and applied research; builds partnerships between researchers and practitioners; disseminates research and best practices to practitioners, scholars, and policymakers; and works with the field of adult literacy education to develop a comprehensive research agenda.

NCSALL is a partnership of the Harvard Graduate School of Education, World Education, Rutgers University, Portland State University in Oregon, and the Center for Literacy Studies at the University of Tennessee in Knoxville. NCSALL receives funding from the U.S. Department of Education's Office of Educational Research and Improvement, National Institute for Postsecondary Education, Libraries, and Lifelong Learning; the Wallace-Reader's Digest Funds; the National Institute for Literacy; and the Office of Vocational and Adult Education.

NCSALL's Dissemination Initiative

NCSALL's dissemination initiative focuses on ensuring that the research results reach practitioners, administrators, policymakers, and scholars of adult education through print, electronic, and face-to-face communication. NCSALL publishes research reports, occasional papers, research briefs, and teaching and training materials; the quarterly journal *Focus on Basics*; and *The Annual Review of Adult Learning and Literacy*, a scholarly review of major issues, current research, and best practices.

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